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A REVISION OF THE SUBFAMILY SAPRININAE FROM THAILAND (COLEOPTERA: HISTERIDAE)

By SŁAWOMIR MAZUR and MASAHIRO ÔHARA

Abstract

MAZUR, S. and ÔHARA, M. 2003. A revision of the subfamily Saprinae from Thailand (Coleoptera: Histeridae). *Ins. matsum. n. s.* 60: 1–30, 20 figs.

Thai Saprinae are redescribed and keyed. *Chalcionellus masumotoi* n. sp. is described. *Gnathoncus vietnamicus* Kryzhanovskij, *Saprinus optabilis* Marseul, *S. quadriguttatus* (Fabricius) and *Chalcionellus orobitis* (Lewis) are new to Thailand. The identity of *Saprinus diversegenitalis* Olexa is confirmed.

Key words. Coleoptera, Histeridae, Saprinae, Thailand, revision, new species.

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INTRODUCTION

The Sapriniinae are poorly represented in the Oriental Region as a whole. As yet only 29 species have been known to occur in this region. Such a situation arises from the fact that elements of the ancient Paleotropic faunistic complex prevail in the Oriental Region as well. This complex consists of genera which occur (and sometimes are endemic) in forests and savannas of the Paleotropic Dominion (Indo-Malayan and Ethiopian Regions). Thus, the characteristic feature of the Oriental histerids is a subcortical way of living. This manner is strictly related to the wealth of forest formations in the whole Oriental Region.

The Oriental Sapriniinae belong to the Paleomediterranean faunistic group which evolved in the Mediterranean and/or in the deserts of Central Asia. The majority of the species are moderately xerophilous, connected with open land. Only few species inhabiting, on one hand, forested areas, or, on the other, deserts (some extremely specialized sabulicolous species exist). They occur predominantly on carrion and dung, some in rodent burrows and bird nests.

Surprisingly, though Thailand has very rich and differentiated histerid-fauna, almost no record exist regarding the occurrence and distribution of Sapriniinae in the area. At present, only one species of *Saprinus* from Thailand, namely *S. diversegenitalis*, has been recorded (Olexa, 1992).

Owing to vast materials of Sapriniinae, collected in Thailand chiefly by Dr. K. Masumoto, and kept now at the Hokkaido University Museum, we were able to study these materials, finding a new species and new records of the remaining ones, so that seven species of Sapriniinae are now known to occur in Thailand.

These studies also allowed confirmation of the identity of *Saprinus diversegenitalis* Olexa and helped in establishing, more precisely, the distribution of *S. frontistrius* Mars. and *S. diversegenitalis* Olexa.

In order to extend our knowledge, all the species, except *S. optabilis*, are precisely redescribed (or described) in detail, while the drawings and SEM photos of external structures (male aedeagus, female spermatheca) are also added.

Finally, we provide a key for all Thai Sapriniinae. This key includes as well three species not yet recorded from Thailand, whose discovery is highly probable owing to their general distribution.

KEY TO THE THAI SPECIES OF THE SUBFAMILY SAPRINIINAE

- | | | |
|---|------|---|
| 1 | (12) | Prosternum without preapical foveae. |
| 2 | (3) | Head without frontal stria. Carinal striae angulately bent and converging toward apex; lateral striae short, joining carinal striae usually about one-third from apex. |
| | |Genus <i>Gnathoncus</i> Duv. |
| | | <i>G. vietnamicus</i> Kryzh. |
| 3 | (2) | Frontal stria present, at least at sides only. Carinal striae diverging apically and joining lateral striae, the carinal striae usually united by submarginal transverse apical stria. |
| | | Genus <i>Saprinus</i> Er. |
| 4 | (9) | Color of elytra metallic blue or greenish-blue. Size over 4 mm. |
| 5 | (6) | Surface of elytra wholly punctured, elytron with yellowish-orange maculae, at least on epipleuron only. |
| | | <i>S. quadriguttatus</i> (F.) |
| 6 | (5) | Scutellar area of elytra nearly smooth (very minutely punctulate), elytron without |

- maculae.
- 7 (8) Marginal pronotal stria shortened basally, progressively distant from the margin. Fourth dorsal elytral stria abbreviated at base. *S. splendens* (Payk.)*
- 8 (7) Marginal pronotal stria complete, laying close to the margin. Fourth stria not abbreviated at base, united by an arc with sutural stria. *S. optabilis* Mars.
- 9 (4) Color of elytra without metallic tinge, brown or brownish-black. Size under 4 mm.
- 10 (11) Interspace between punctures on elytra with distinct, alutaceous microsculpture. Aedeagus and 8th sternite of male as figured. (Fig. 15). *S. diversegenitalis* Olexa
- 11 (10) Interspace between punctures smooth or with very fine microreticulation. Aedeagus and 8th sternite of male as figured. (Fig. 10). *S. frontistrius* Mars.
- 12 (1) Preapical foveae of prosternum present.
- 13 (16) Prosternum wide, its carinal striae united anteriorly by a loop. Frons without rugae. Genus *Chalcionellus* Reichardt
- 14 (15) Punctuation of elytra reaching up the base in the 1st interval; smooth apical band of elytra wide. Interspace among punctures with alutaceous microsculpture. *Ch. orobitis* (Lew.)
- 15 (14) Punctuation of elytra reaching to the midlength; smooth apical margin very narrow or absent. Interspace among punctures smooth and shiny. *Ch. masumotoi* n. sp.
- 16 (13) Prosternum compressed, its carinal striae abbreviated anteriorly or acutely united. Genus *Hypocaccus* Thoms.
- 17 (18) Pronotum nearly smooth, at least finely punctulate laterally. Meso-metasternal suture without crenate line. Subgenus *Baeckmanniolus* Reich.
..... *H. (B.) varians* (Schmidt)*
- 18 (17) Pronotum coarsely punctate. Meso-metasternal suture with strong and crenate line. Subgenus *Hypocaccus* Thoms.
..... *H. (H.) sinae* (Mars.)*

*: The following species are not recorded so far, but a finding of which is highly probable owing to their general distribution.

Saprinus splendens (Paykull, 1811)

For detailed description see Ôhara, 1994: 236–239, figs. 120A–G; 2003: 39, figs. 4A–G, 5A–D, 6.

Distribution: tropical Africa, Arabia, Kashmir, Afghanistan, Pakistan, Oriental Region, Japan, Australia.

Hypocaccus (Hypocaccus) sinae (Marseul, 1862)

For detailed description see Ôhara, 1994: 250–252, figs. 150A–G.

Distribution: South-eastern China, Japan, Ussuriyskiy Kray, Sakhalin, Oriental Region, Australia.

Hypocaccus (Baeckmanniolus) varians (Schmidt, 1890)

For detailed description see Ôhara, 1994: 258–262, figs. 156A–D, 157A–G.

Distribution: Japan, continental China, Taiwan, Sakhalin, Vietnam, Philippines, Sri Lanka, Solomon Is., Australia.

ENUMERATION

Gnathoncus vietnamicus Kryzhanovskij, 1972 (Figs. 1–3)

Gnathoncus vietnamicus Kryzhanovskij, 1972: 22 [Vietnam].

Redescription. Female. Body length**: PPL, 3.17; PEL, 2.58; APW, 0.78; PPW, 1.91; PL, 0.94; EL, 1.58; EW, 2.20; ProW, 1.32; ProL, 0.39; PyL, 1.03; PTL, 0.68; MSTL, 0.71; MTTL, 0.87. Body broadly oval and convex. Cuticle shiny and black; antennae, legs and mouth parts dark reddish-brown, the antennal club rufopiceous, finely pubescent.

Front moderately densely covered with round punctures, separated by 0.5 – 3.0 times their diameter and intermingled with very minute punctulation. Epistoma flat, its anterior margin emarginate, more finely punctured as that on front. Labrum transverse, a little emarginate anteriorly, minutely punctulate. Mandibles convex, finely and sparsely punctulate, their inner margin with a small denticle, mandibular apex long and sharp.

Pronotal sides feebly arcuate and convergent on basal 2/3, thence strongly convergent apically. Apical angles obtuse. Marginal stria carinate and complete. Disc moderately densely covered with slightly oblong punctures, separated by 1 – 2 times their diameter, the punctures becoming coarser and denser towards sides, being separated here by 0.5 – 1.0 times their diameter. Interspace among these punctures smooth and shiny, with occasional microscopic punctures.

Epipleura of elytra not concave, alutaceous. Marginal epipleural as well as an another epipleural stria thin but complete. Marginal elytral stria complete, carinate and its apical end attaining the elytral apex. Surface of epipleura between the marginal epipleural stria and second epipleural stria smooth, surface between marginal elytral stria and second epipleural stria moderately densely covered with elongate punctures. Inner subhumeral stria a little crenate, present on medio-apical 1/3. Oblique humeral stria present on basal 1/3 and crossed by some oblique rugae. Dorsal striae deeply impressed and crenate, all the striae a little hamate inwardly at base. First dorsal stria present on basal 3/5, the 2 – 4 ones progressively shortened, the 4th one extending to/or a little beyond the elytral mid length. Sutural stria present on median 1/3 only. There are also two short, semicircular striae at elytral base between the suture and the 4th dorsal stria. Surface of apical 1/2 – 3/5 of elytra covered with deep and oval punctures, separated by 0.5 – 2.0 times their diameter, surface of basal 1/2 – 2/5 more finely punctulate than middle of pronotal disc. Interspace among punctures with fine, alutaceous microreticulation, especially at elytral apex.

Propygidium covered densely with coarse, transversely elongate punctures, being

** : Measurements. Measurements of some body parts are given in text in the order of range, mean \pm standard error (all in mm), and sample size. Abbreviations used in the measurements are as follows: PPL: length between anterior angles of pronotum and apex of pygidium, PEL: length between anterior angles of pronotum and apices of elytra, APW: width between anterior angles of pronotum, PPW: width between posterior angles of pronotum, PL: length of pronotum along mid line, EL: length of elytron along sutural line, EW: maximal width between outer margins of elytra, ProW: maximal width of propygidium, ProL: length of propygidium, PyL: length of pygidium, PTL: length of protibia, MSTL: length of mesotibia, MTTL: length of metatibia. See also Ôhara (1994: 8, fig. 2).

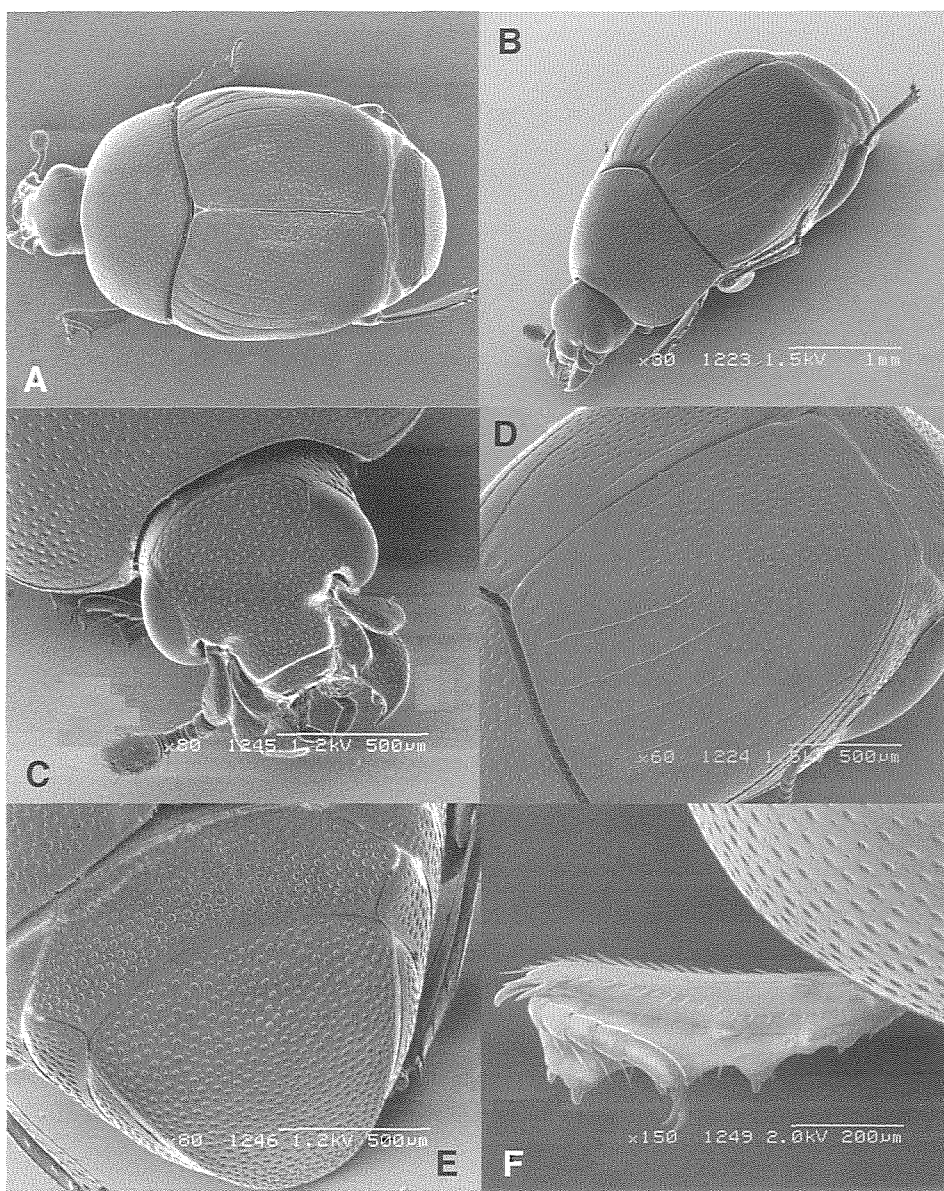


Fig. 1. *Gnathoncus vietnamicus*. A: Adult, dorsal view. B: Ditto, oblique view. C: Head, frontal view. D: Left elytron, dorso-oblique view. E: Propygidium and pygidium, caudal view. F: Left protibia, dorsal view. [female, MO-02027 (Doi Inthanon, Chaing Mai)].

separated by 0.2 – 0.5 times the diameter, and more finely and more sparsely punctured on basal half. All the interspace alutaceous. Pygidium incised laterally, densely covered with round or slightly elongate punctures, separated by about 0.5 (0.2 – 0.7) times the diameter, the apex more finely punctured. Interspace among the punctures smooth, only with traces of microsculpture.

Anterior margin of median portion of prosternum round. Ventral disc of keel even,

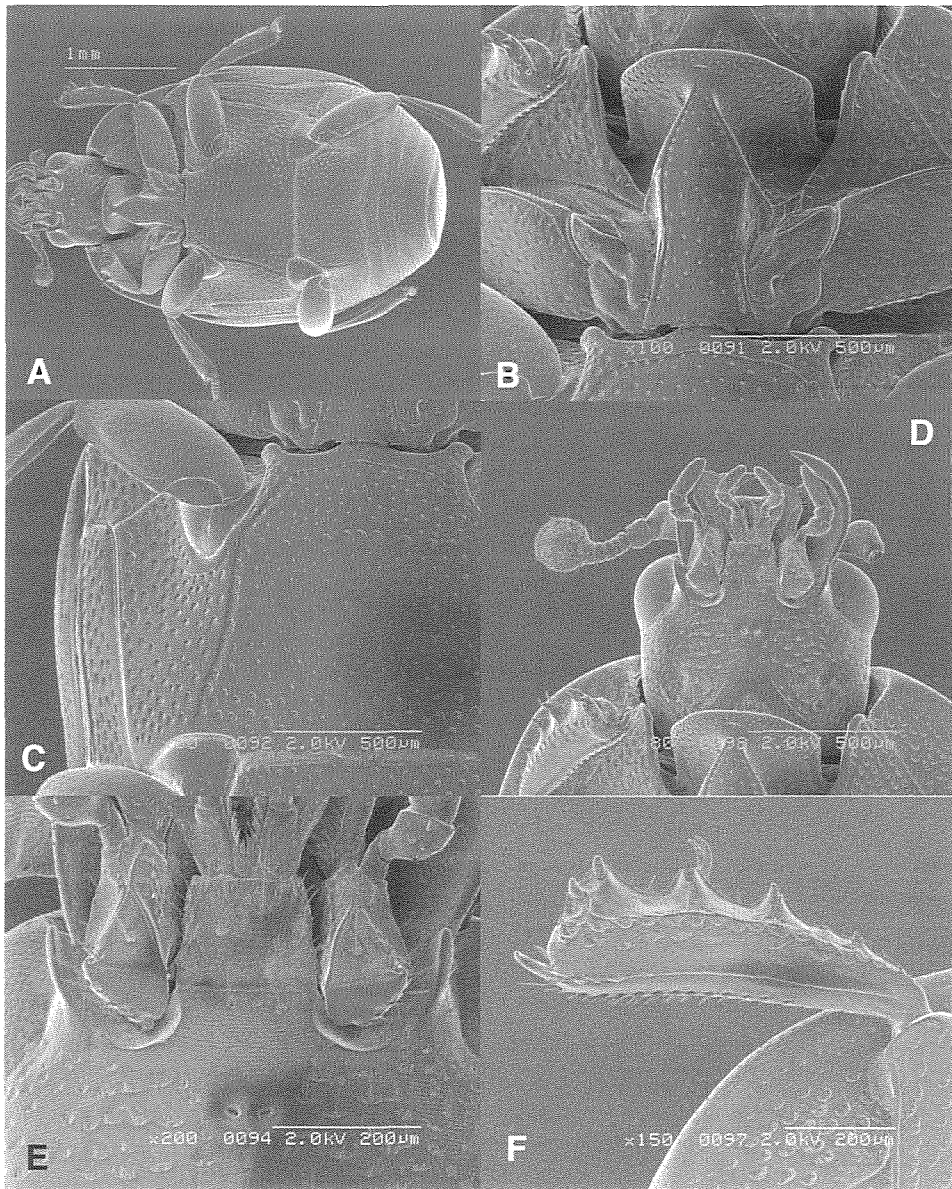


Fig. 2. *Gnathoncus vietnamicus*. A: Adult, ventral view. B: Prosternum, ventral view. C: Meso- and metasterna, ventral view. D: Head, ventral view. E: Mentum and submentum, ventral view. F: Left protibia, ventral view. [female, MO-02027 (Doi Inthaon, Chaing Mai)].

sparsely and moderately punctate. Carinal striae complete, carinate and sinuate, the anterior apex of striae attaining to a large preapical fovea. Descending lateral stria shortly present on medial 1/3 of prosternum, its medio-apical end attaining to apical 1/3 of keel.

Anterior margin of mesosternum bisinuate, with a feeble median projection. Marginal stria of mesosternum complete and carinate. Disc sparsely covered with elongate and setiferous punctures, the interspace between punctures a little alutaceous. Meso-metasternal

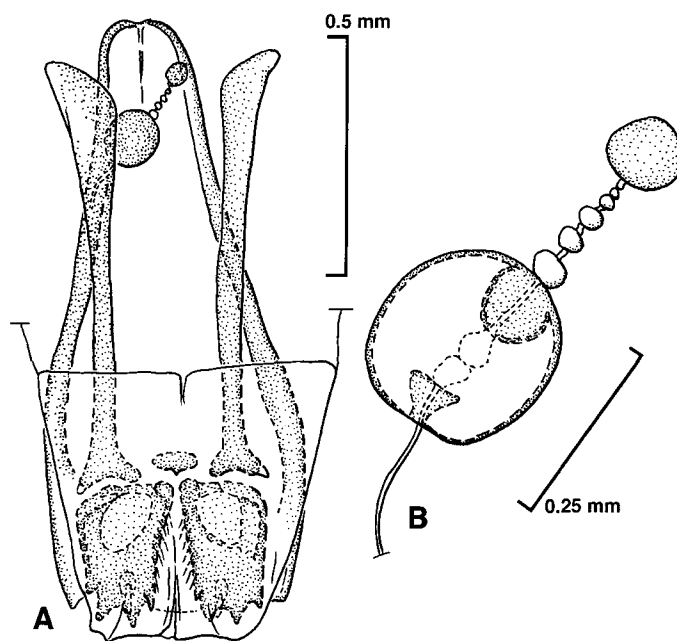


Fig. 3. *Gnathoncus vietnamicus*. A: Female genitalia, dorsal view. B: Spermatheca and spermathecal gland. [MO-02027 (Doi Inthanon, Chaing Mai)].

suture impressed and accompanied by a crenate line. Median area of intercoxal disc of metasternum sparsely clothed with fine and setiferous punctures, the punctures separated by 2 – 5 times their diameter, posterior corner evenly covered with coarse punctures which are separated by 0.5 – 1.5 times their diameter. Lateral metasternal stria carinate and deeply impressed on lateral 2/3 of intercoxal disc, lateral disc moderately covered with round, setiferous punctures. Metepisternum more densely covered with elongate punctures than those of lateral disc.

Intercoxal disc of 1st abdominal sternum completely striate, the stria carinate, running along postcoxal cavity on basal 1/2 and straight towards posterior margin on apical 1/2. Surface of disc sparsely covered with moderately large punctures, the punctures being finer on median and apical area.

Protibia with 3 teeth bearing spinules on outer margin as well as with two, obtuse, proximal and spinulose ones.

Female genitalia: spermatheca as shown in Fig. 3B.

Specimen examined. Thailand: Doi Inthanon, Chiang Mai, 31.VII.1987, K. Masumoto, 1 female (MO-02027).

Distribution. Described and known so far only from Vietnam. New to Thailand.

Saprinus optabilis Marseul, 1855

Saprinus optabilis Marseul, 1855: 438 [India]; Ôhara, 2003: 32 [Taiwan].

Saprinus dives Lewis, 1911: 88, synonymized by Dahlgren, 1969: 266.

For a detail redescription and figures, see Ôhara, 2003: 32–37.

Specimens examined. Thailand: Poi Pui, Chiang Mai, 2.II.1988, Y. Manti, 15 exs.; Doi Suthep, Chiang Mai, 6.II.1989, 9.XI.1995, K. Masumoto, 2 exs.; Ban Huai Mo, 15.III.1992, Y. Okushima, 1 ex.; Doi Inthanon, Chiang Mai, 14.III.1988, 2200 m. K. Masumoto, 5 exs.; Ban Phron Song, Chaityaphum Prov., 2.XII.1998, K. Masumoto, 3 exs.

Distribution. India, Nepal, Vietnam, southern continental China, Taiwan, New Guinea. New to Thailand.

Saprinus quadriguttatus (Fabricius, 1798)
(Figs. 4–7)

Hister quadriguttatus Fabricius, 1798: 39 [terra typical not stated].

Hister lateralis Illiger, 1807: 36 [nom. nud.].

Saprinus quadriguttatus var. *lateralis*: Desbordes, 1919: 411.

Redescription. Body length (M: male, n=2; F: female, n=1): PPL, M 4.66–4.9, F 4.66; PEL, M 3.63–4.02, F 3.63; APW, M 1.23–1.32, F 1.23; PPW, M 3.14–3.19, F 3.04; PL, M 1.57–1.72, F 1.62; EL, M 2.25–2.40, F 2.21; EW, M 3.38, F 3.28; ProW, M 1.91–1.96, F 2.01; ProL, M 0.49, F 0.49; PyL, M 1.42–1.66, F 1.47; PTL, M 1.23, F 1.62; MSTL, M 1.27–1.37, F 1.23; MTTL, M 1.37–1.42, F 1.37. Body broadly oval, convex. Cuticle very strongly shiny with blue metallic lustre, elytron with two yellowish-orange maculae: one on epipleura and the second, oval, at apex. More frequently only the epipleural maculae present (var. *lateralis*). Scapus and funicle of antennae and tarsi rufopiceous.

Frontal stria weakly marked, interrupted anteriorly. Supraorbital stria thin but complete. Disc of front densely punctate, the punctures being separated by 0.5 – 1.0 times their diameter. Epistoma convex, more densely punctured. Labrum broadly and deeply depressed medially. Mandibles sparsely and finely punctulate.

Pronotal sides evenly arcuate and convergent forward on basal 3/4, thence strongly convergent apically. Apical angles obtuse. Marginal stria thin, lightly carinate apically and abbreviated on basal 1/5. Disc nearly smooth, very finely and sparsely punctulate, the punctures becoming denser, larger and deeper laterally; especially at antero-lateral part where the punctures are elongate and separated by 0.1 – 2.0 times their diameter. Area behind eyes strongly depressed. Pronotal epipleura concave, moderately covered with fine punctures, each of them bearing a short yellowish seta.

Epipleura of elytra even, very sparsely covered with fine, elongate punctures. Marginal epipleural stria fine but complete, prolonged on the elytral apex as an apical stria and united with sutural stria. Marginal elytral stria absent. Subhumeral stria wanting. Oblique humeral stria well impressed and present on basal 1/3. First to 3rd dorsal striae crenate, strongly impressed and present on about basal 1/2, the 3rd inwardly hamate basally. The 4th stria indistinct, composed of elongate punctures and marked as a short crenate line on mediobasal 1/4. Suture stria complete and thin, finely crenate, hamate outwardly at base. Surface of elytra covered with elongate punctures, most densely at humeri and in intervals

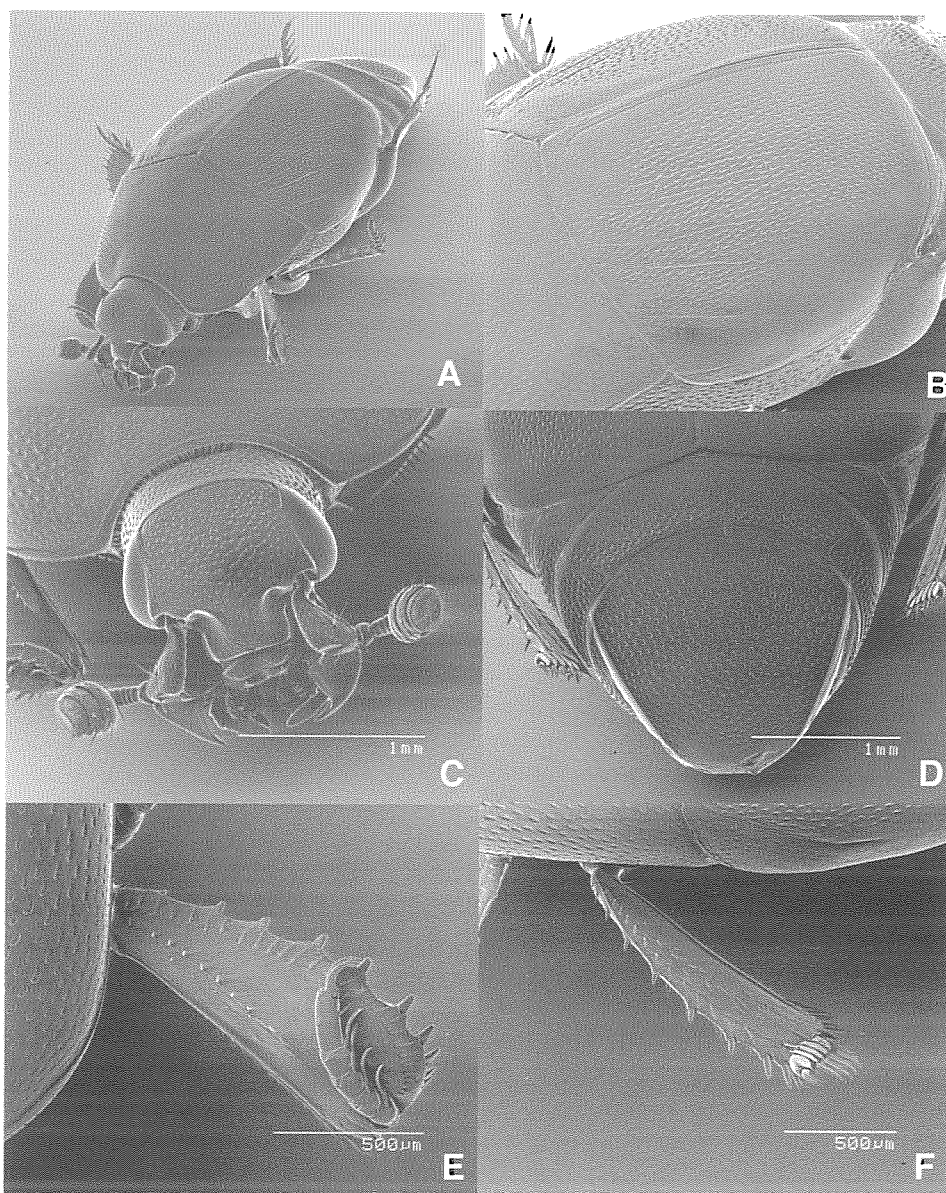


Fig. 4. *Saprinus quadriguttatus*. A: Adult, oblique view. B: Left elytron, dorso-oblique view. C: Head, frontal view. D: Propygidium and pygidium, caudal view. E: Left protibia, dorsal view. F: Left mesotibia, male, dorsal view. [male, MO-02034 (Mae Sa Valley, Chiang Mai)].

1 – 4, where the punctures almost confluent, less densely punctured at apex and in scutellar area. All the interspace covered with alutaceous microsculpture.

Propygidium short, disc densely covered with punctures, most densely at apex. Pygidium moderately densely covered with oval punctures separated by 1 – 4 times their diameter, the punctation becoming finer apically, the apex finely punctulate.

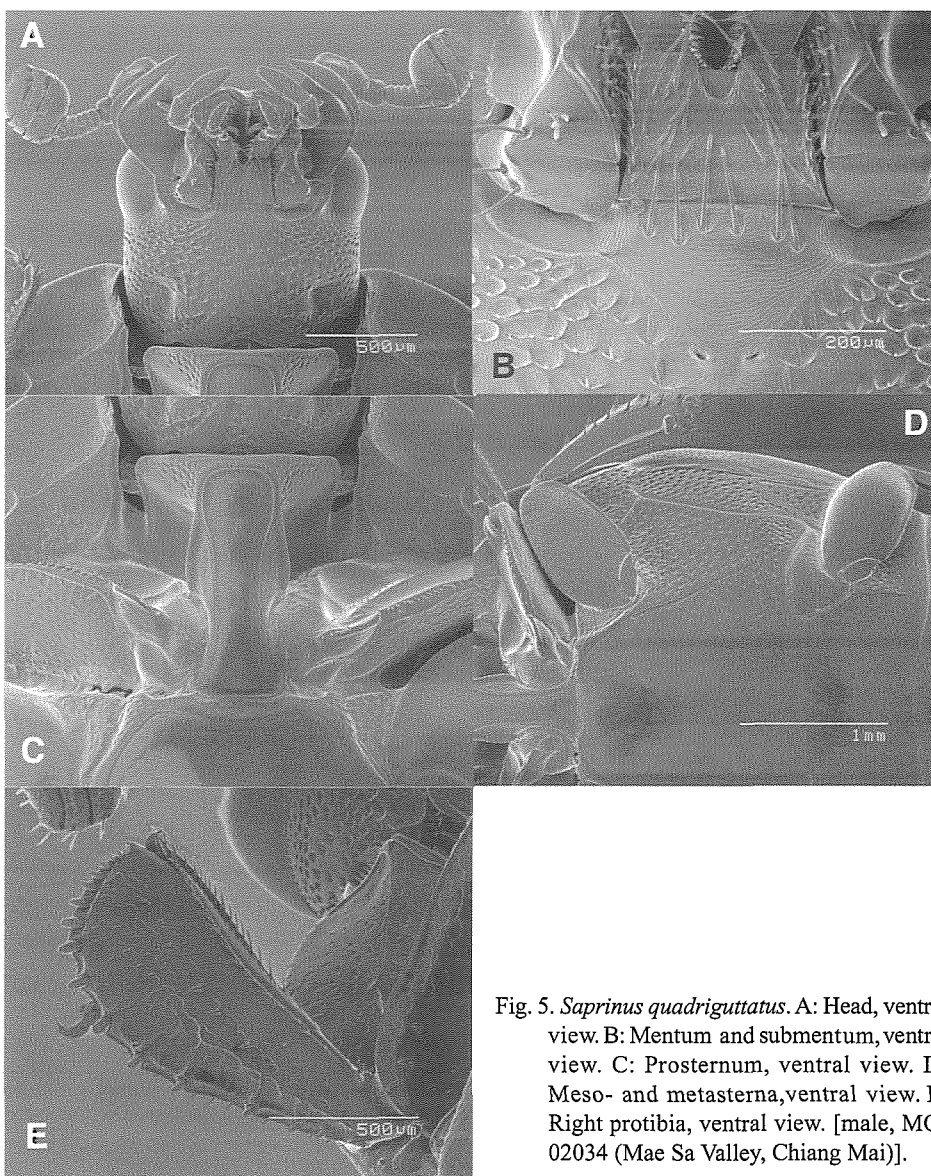


Fig. 5. *Saprinus quadriguttatus*. A: Head, ventral view. B: Mentum and submentum, ventral view. C: Prosternum, ventral view. D: Meso- and metasterna, ventral view. E: Right protibia, ventral view. [male, MO-02034 (Mae Sa Valley, Chiang Mai)].

Anterior margin of median portion of prosternum weakly rounded, nearly straight. Ventral disc of keel a little convex, descending anteriorly on 1/5, finely and rarely covered with punctures. Anterior marginal stria of keel strongly carinate and complete. Carinal striae carinate, complete and divergent posteriorly and anteriorly. Descending lateral stria complete, united with the carinals at 1/5 of their apical length.

Anterior margin of mesosternum slightly emarginate medially, its marginal stria distinctly carinate and complete. Disc sparsely clothed with very fine punctures. Meso-metasternal suture fine and thin, without a crenate line. Intercostal disc of metasternum flat or depressed longitudinally along median line in male, median area very sparsely clothed with fine punctures. Lateral area along the lateral stria more densely covered with coarse (1

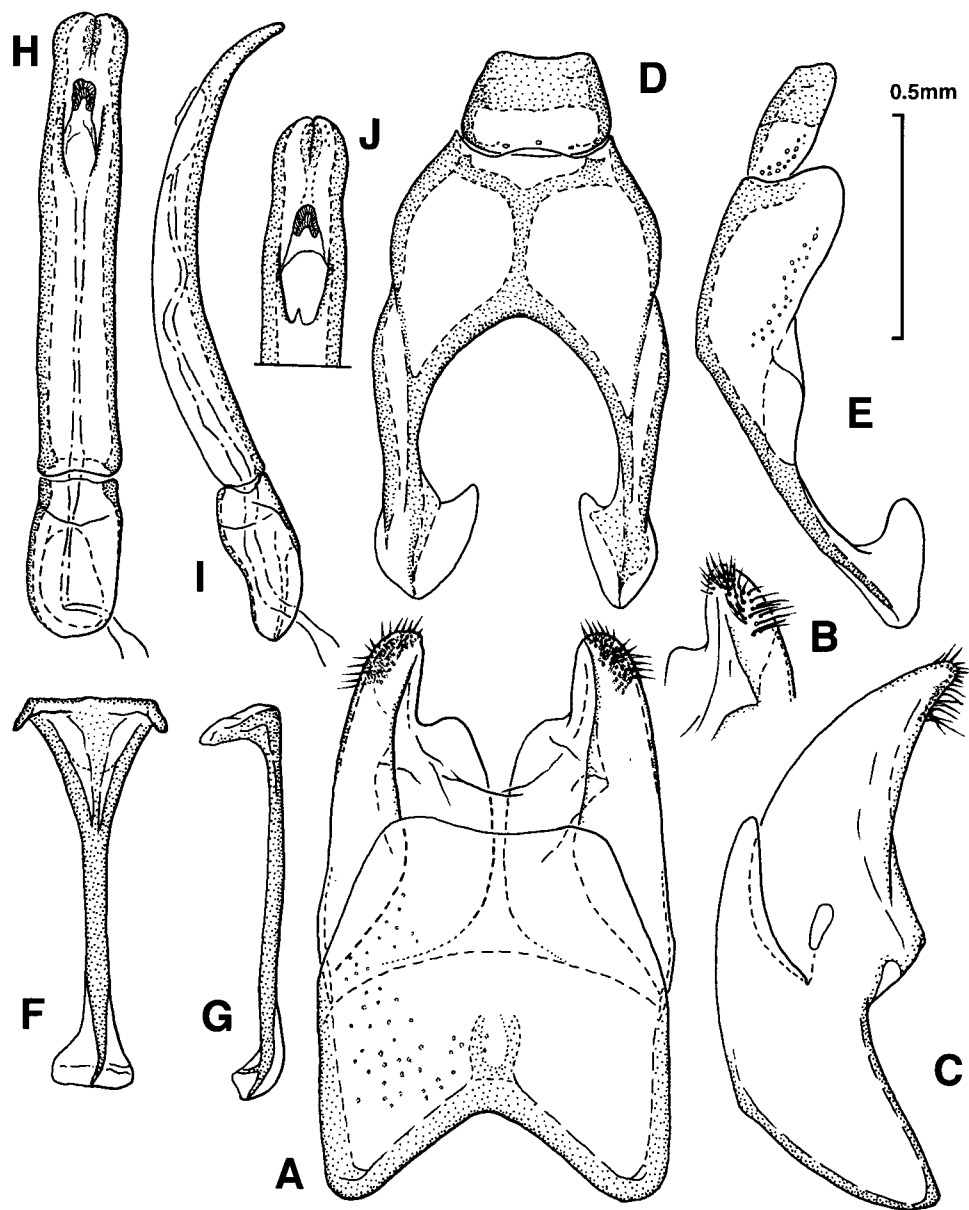


Fig. 6. *Saprinus quadriguttatus*. Male genitalia. A: Eighth tergite and sternum, dorsal view. B: Apex of eighth tergite, inner oblique view. C: Eighth tergite and sternum, lateral view. D: Ninth and tenth tergites, dorsal view. E: Ditto, lateral view. F: Ninth sternum (spicule), ventral view. G: Ditto, lateral view. H: Aedeagus, dorsal view. I: Ditto, lateral view. J: Apex of aedeagus, dorsal view. [MO-02076 (Kaoyai National Park)].

– 4), elongate punctures; interspace among punctures with fine, alutaceous microsculpture. Lateral metasternal stria carinate, extending obliquely and posteriorly, and present on basal 3/4. Lateral metasternal disc covered with large, elongate and deep punctures, the basal ones bearing with a short, yellow seta. Interspace among punctures with very fine, irregular

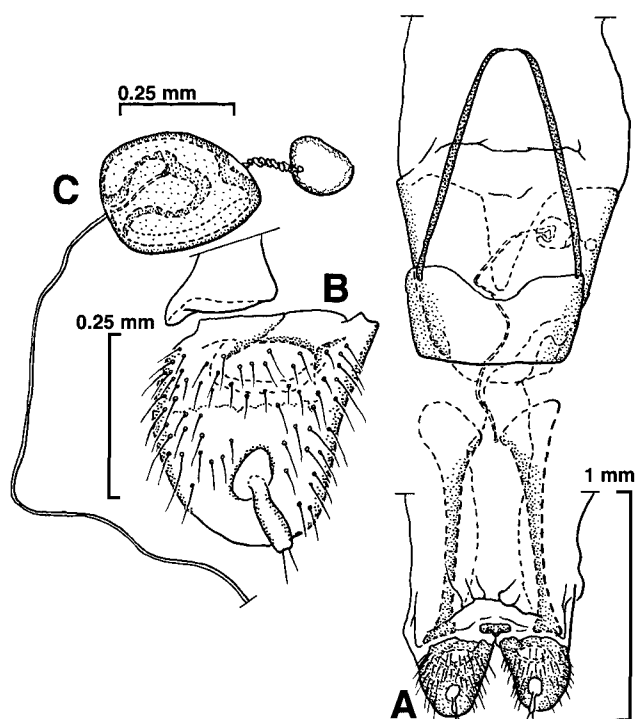


Fig. 7. *Saprinus quadriguttatus*. A: Female genitalia, ventral view. B: Coxite, ventral view. C: Spermatheca and spermathecal gland. [MO-02077 (Ban Lon, Chaiyaphum)].

and transverse, alutaceous microsculpture. Metepisternum densely covered with deep, longitudinal punctures; interspace among these punctures shining.

Intercoxal disc of 1st abdominal sternite nearly smooth, with some fine punctures at apex and more coarser ones laterally; the interspace here with very fine, irregular alutaceous microsculpture. Lateral stria well carinate and abbreviated on apical 1/4.

Protibia with 7 spinules at outer margin and with a row of spinules at apex. Mid- and hindtibiae with two rows of spinules at outer margin.

Genitalia. Male: apical part of 8th sternum narrow, and furnished with dense hairs. Ratio in length of parameres to basal piece about 2.86. Female: spermatheca as shown in Fig. 7C.

Specimens examined. Thailand: Pak Chong, Kaoyai National Park, 3.XI.1996, on dead fish, M. Kasagi, 1 male (MO-02076); Mae Sa Valley, Chiang Mai, 3 – 6.V.1994, K. Masumoto, 1 male (MO-02034); Ban Lon, Chaiyaphun Prov., 13, 14.III.2000, K. Masumoto, 1 female (MO-02077).

Distribution. Afghanistan, Pakistan, India, Bangla-Desh, Taiwan, Sumatra, Vietnam. New to Thailand.

Saprinus frontistrius Marseul, 1855
(Figs. 8–12)

Saprinus frontistrius Marseul, 1855: 450 [Chile (error!)]]; Olexa, 1992: 9.

Redescription. Body length (M: male, n=5; F: female, n=3): PPL, M 2.58–3.17

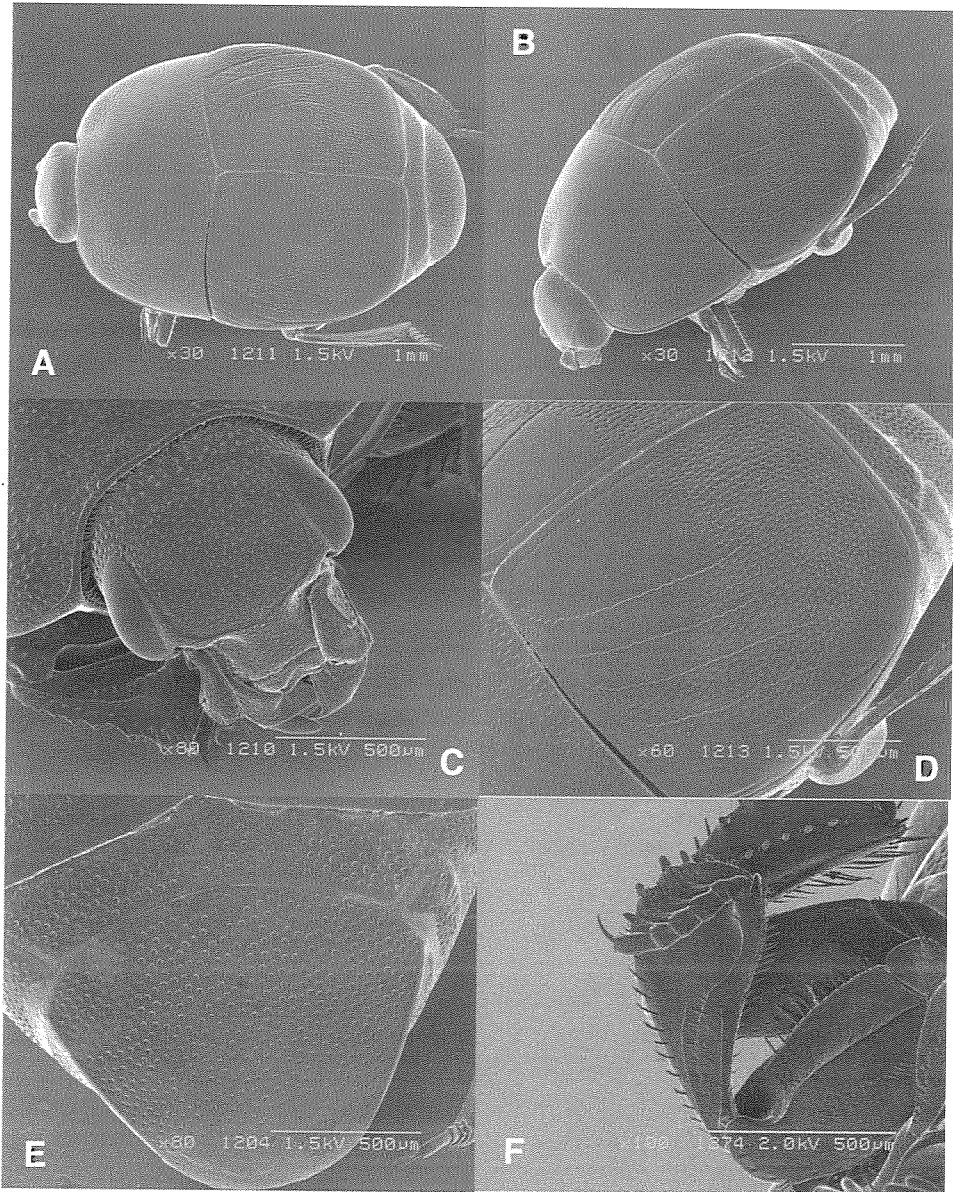


Fig. 8. *Saprinus frontistrius*. A: Adult, dorsal view. B: Ditto, dorso-oblique view. C: Head, frontal view. D: Left elytron, dorsal view. E: Propygidium and pygidium, caudal view. F: Left protibia, dorsal view. [male, MO-02035 (Doi Mae Salong, Chaing Mai)].

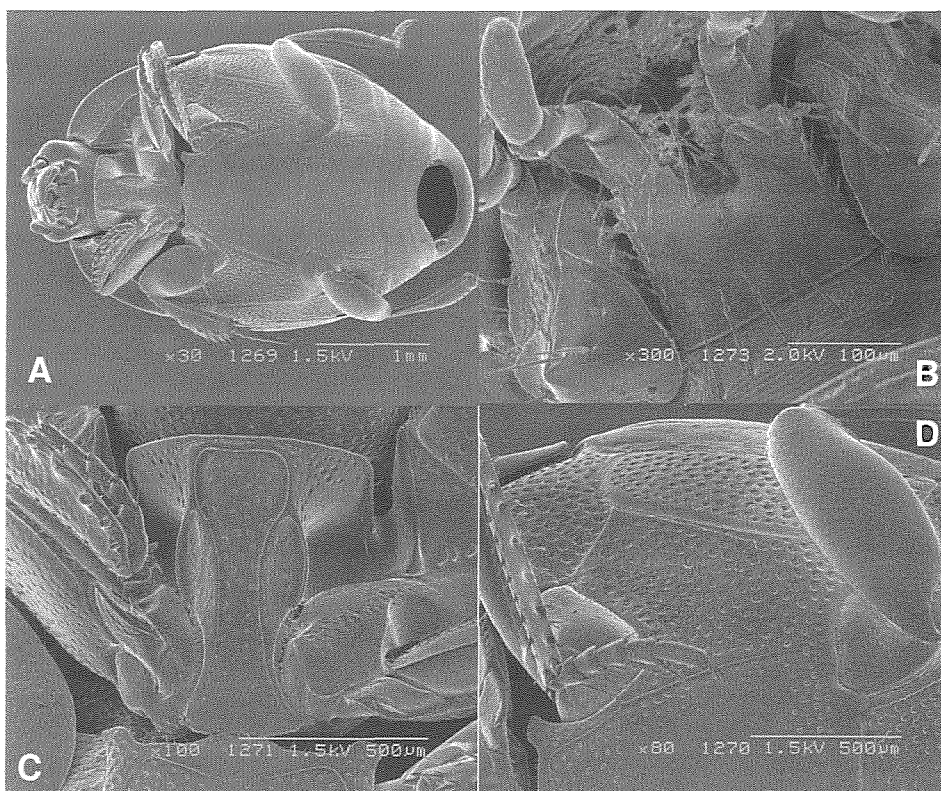


Fig. 9. *Saprinus frontistrius*. A: Adult, ventral view. B: Mentum and submentum, ventral view. C: Prosternum, ventral view. D: Meso- and metasterna, ventral view. [male, MO-02035 (Doi Mae Salong, Chaing Mai)].

(2.80±0.105), F 3.17–3.88 (3.45±0.215); PEL, M 2.10–2.52 (2.29±0.079), F 2.65–3.23 (2.93±0.168); APW, M 0.68–0.81 (0.75±0.026), F 0.81–1.07 (0.92±0.078); PPW, M 1.74–2.03 (1.89±0.06), F 2.04–2.68 (2.30±0.194); PL, M 0.81–0.97 (0.89±0.033), F 0.90–1.32 (1.08±0.126); EL, M 1.26–1.49 (1.40±0.041), F 1.61–1.91 (1.72±0.092); EW, M 1.91–2.23 (2.06±0.067), F 2.35–2.91 (2.56±0.173); ProW, M 1.00–1.36 (1.16±0.064), F 1.36–1.71 (1.50±0.011); ProL, M 0.23–0.32 (0.26±0.016), F 0.29–0.39 (0.34±0.029); PyL, M 0.90–1.03 (0.97±0.029), F 1.12–1.29 (1.23±0.032); PTL, M 0.61–0.74 (0.67±0.028), F 0.74–1.00 (0.84±0.081); MSTL, M 0.61–0.80 (0.71±0.042), F 0.74–1.13 (0.89±0.12); MTTL, M 0.68–0.90 (0.78±0.048), F 0.90–1.20 (1.01±0.092). Body oval, convex. Cuticle strongly shiny, dark brown with copper tinge; antennae dark rufopiceous with club rufotestaceous. Legs dark, reddish brown.

Frontal stria of head complete and carinate. Supraorbital stria absent. Disc of front moderately densely covered with round punctures, separated by 1 – 2 times their diameter. There is also a foveiform point basico-medially. Epistoma convex, more finely punctate, the punctures being smaller than those of frontal disc. Labrum finely punctured, strongly incised anteriorly.

Pronotal sides feebly arcuate and convergent forward on basal 3/4, thence strongly convergent apically. Apical angles obtuse. Marginal stria complete, strongly impressed,

not crenate, a little shortened at base, its basal end inwardly bent. Disc sparsely and evenly covered with fine punctulation; the pronotal sides and anterior margin covered with moderately dense punctures separated by 1 – 3 times their diameter; the punctation becoming progressively denser laterally, especially on anterior angles where the punctures being elongate. Interspace among the punctures without microreticulation, shiny. Pronotal base with 2 – 3 rows of elongate punctures, densely distributed (0.2 – 1.0). Anterior angles behind eyes with very distinct, rounded postocular foveae.

Epipleura of elytra not concave, very finely and sparsely punctulate on apical half.

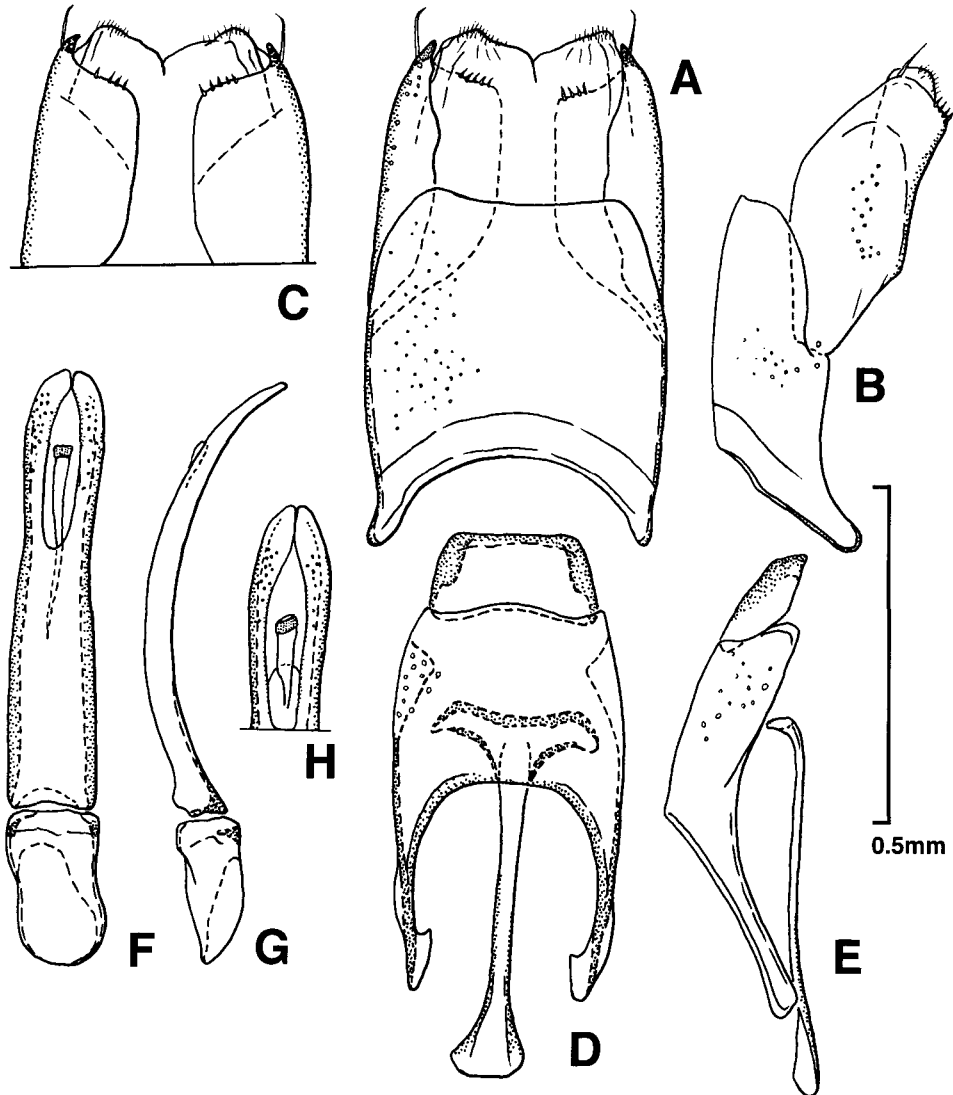


Fig. 10. *Saprinus frontistrius*. Male genitalia. A: Eighth tergite and sternum, dorsal view. B: Ditto, lateral view. C: Apical part of eighth sternum, ventral view. D: Ninth and tenth tergites, and ninth sternum (spicule), dorsal view. E: Ditto, lateral view. F: Aedeagus, dorsal view. G: Ditto, lateral view. H: Apex of aedeagus, dorsal view. [MO-02022 (Doi Suthep, Chiang Mai)].

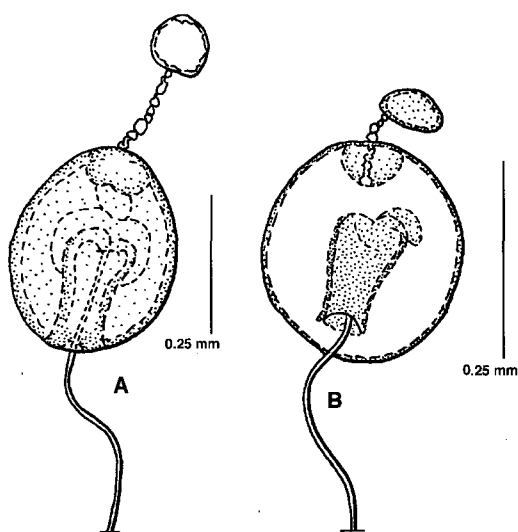


Fig. 11. A: *Saprinus frontistrius*. B: *S. diversegenitalis*. Spermatheca and spermathecal gland. [A: MO-02029 (Doi Suthep, Chiang Mai); B: MO-02023 (Doi Suthep, Chiang Mai)].

Marginal epipleural stria fine and thin but complete, prolonged onto elytral apex as an apical stria and united with the sutural one. Marginal elytral stria clearly impressed, with some coarse punctures at bottom, reaching from humeral angles to the elytral apex. Inner subhumeral stria deep and crenate, abbreviated basally and apically, joining the oblique humeral stria. Humeral stria crenate, present on basal 1/4. First to 4th dorsal striae distinct, crenate, hamate at base, almost equal in length, reaching to or a little beyond the mid length of elytra. The 4th one arched basally and united with sutural stria. The sutural stria complete and impressed, crenately punctate on apical half. There is also a row of minute punctures between it and a suture, more visible at apical part. Surface of elytra nearly smooth on basal half, very finely and sparsely punctulate in the interspace 2 – 4 and on basal area between 1st dorsal and marginal elytral striae. Apical half of elytra densely covered with coarse, elongate punctures, the punctation reaching also the base between 1st and 2nd dorsal striae. The punctures often rugosely confluent. The interspace usually smooth, sometimes with very fine, irregular microreticulation. Extreme apex of elytra (around apical stria) and flanks finely punctate.

Propygidium densely and moderately punctate, the punctures sometimes transversely elongate, especially at apex, separated by 0.3 – 1.5 times their diameter, the punctation finer on basal part. Interspace between punctures smooth, only at base with fine microsculpture, more or less distinctly marked. Pygidium convex, densely and moderately coarsely punctate on basal half, the punctures becoming finer and sparser towards apex, the apex very finely and sparsely punctulate. Interspace shiny, without microsculpture.

Apical margin of median portion of prosternum rounded, its marginal stria short and carinate, present only at median 1/3. Keel moderately convex, sparsely covered with moderate punctures. Descending lateral stria strongly carinate, convergent to apex and united with the carinals on apical 1/5. Carinal striae distinctly convergent anteriorly and posteriorly (its minimal width equals about 1/2 of maximal width at apex) and united anteriorly.

Anterior margin of mesosternum feebly emarginate medially, its marginal stria impressed, with some punctures at bottom. Disc sparsely covered with coarse punctures,

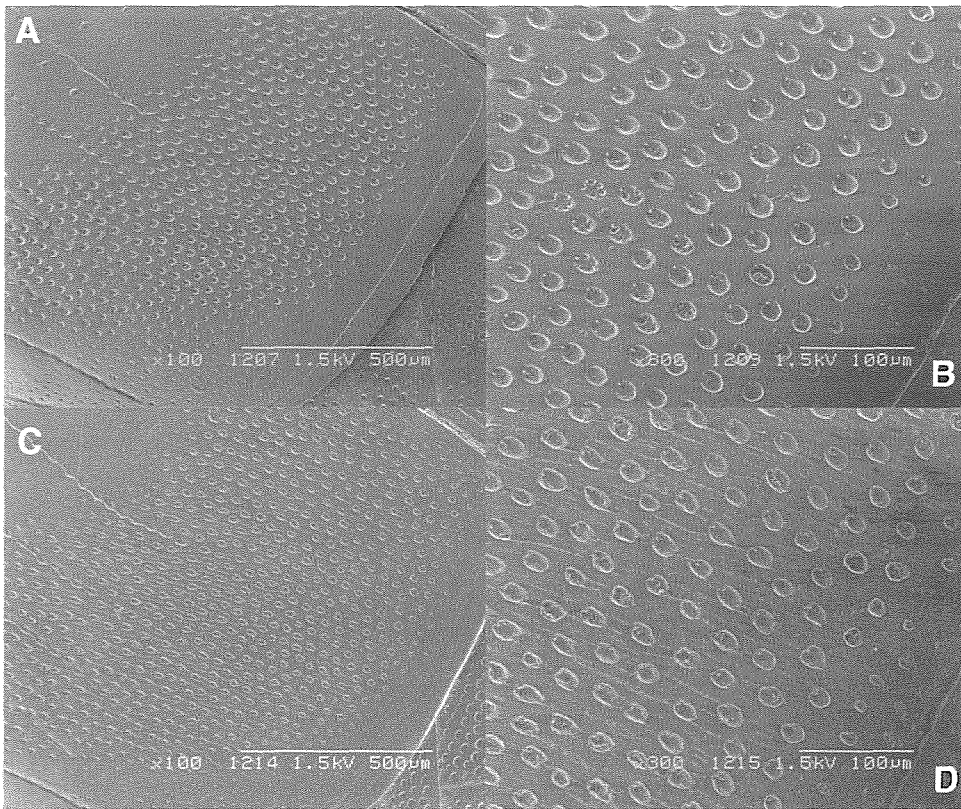


Fig. 12. A–B: *Saprinus frontistrius*. C–D: *S. diversegenitalis*. A, C: Left elytron, dorso-oblique view. B, D: Apical part of left elytron, dorso-oblique view. [A–B: MO-02035; C–D: MO-02031].

separated by 2 – 4 times their diameter. Meso-metasternal suture finely impressed, with sparsely and coarsely crenate line. Intercoxal disc of metasternum nearly smooth, very sparsely and finely punctulate, except a transverse apical band of 2 – 3 rows of elongate punctures, densely distributed, and with some small punctures along the metasternal lateral stria. Lateral metasternal stria well impressed, extending obliquely and posteriorly, a little abbreviated apically, reaching nearly hind coxa. Lateral disc covered with large, round and deep punctures, separated by 0.5 – 1.0 times their diameter. Interspace among the punctures smooth and shiny. Metepisternum moderately densely covered with a little elongate punctures.

Intercoxal disc of 1st abdominal sternum striate on each side, the striae a little shortened at apex and bent outwardly. The punctation very fine and sparse on middle, more densely and coarsely punctured along the lateral stria behind anterior corner and in a transverse apical and basal band.

Protibia with 8(+2) spinules on outer margin and with 2 small spinules at apex.

Genitalia. Male: apical part of 8th sternum rather boardly sclerotized in ventral view. Ratio in length of parameres to basal piece about 2.9. Female: spermatheca as shown in Fig. 11A.

Specimens examined. Thailand: Ang Kang, Chiang Mai, 25.III.1991, Y. Manit, 1 male; Doi Angkhang, 1750 m, Fang, 23.V.1989, K. Masumoto, 1 male; Doi Suthep, Chiang Mai, 7.II.1989, K.

Masumoto, 2 males (MO-02022), 1 female (MO-02029); Poi Pui, Chiang Mai, 2.II.1988, Y. Manti, 1 male, 1 female; Doi Inthanon, Chiang Mai, 2200 m, 14.III.1988, K. Masumoto, 1 male; Wiang Papao, Chiang Rai, 1–2.I.1991, K. Masumoto, 1 ex.; Doi Mae Salong, Chiang Rai, 30.XII.1990, K. Masumoto, 4 males (MO-02035); Bokian, Samoeng, 21.XI.1994, K. Masumoto, 1 male, 1 female.

Distribution. Continental China, Vietnam, Thailand.

Note. Extremely similar to *Saprinus diversegenitalis* in external features. It can be distinguished from the latter by average smaller size, elytral microsculpture less developed and often lacking and, especially, by different structure of aedeagus and 8th sternite in the male. Owing to confusion with *S. diversegenitalis* its distribution should be newly stated. Recorded from "China" (type locality, as it was written on the label of the type, not "Chili" as it has been published), Vietnam and Thailand where *S. diversegenitalis* is also found.

Saprinus diversegenitalis Olexa, 1992
(Figs. 11–15)

Saprinus diversegenitalis Olexa, 1992: 7 [Thailand, Nepal].

Saprinus frontistrius: Mazur, 1997: 223 [part.].

Redescription. Body length (M: male, n=5; F: female, n=5): PPL, M 2.81–3.07 (2.94±0.058), F 3.13–3.72 (3.31±0.124); PEL, M 2.45–2.65 (2.54±0.035), F 2.58–2.97 (2.73±0.093); APW, M 0.71–0.90 (0.81±0.035), F 0.87–1.00 (0.90±0.031); PPW, M 1.87–2.20 (2.08±0.059), F 2.16–2.65 (2.31±0.093); PL, M 0.90–1.07 (0.99±0.028), F 1.03–1.23 (1.06±0.043); EL, M 1.32–1.55 (1.50±0.044), F 1.55–1.94 (1.69±0.083); EW, M 2.00–2.42 (2.22±0.080), F 2.29–2.81 (2.49±0.092); ProW, M 1.23–1.45 (1.36±0.040), F 1.29–1.62 (1.45±0.058); ProL, M 0.23–0.36 (0.27±0.022), F 0.29–0.32 (0.31±0.079); PyL, M 0.94–1.13 (1.04±0.040), F 1.13–1.36 (1.21±0.049); PTL, M 0.58–0.87 (0.74±0.053), F 0.76–1.03 (0.87±0.045); MSTL, M 0.55–0.87 (0.76±0.058), F 0.81–1.03 (0.89±0.046); MTTL, M 0.58–0.97 (0.82±0.069), F 0.84–1.13 (0.94±0.051). Body oval, convex. Cuticle strongly shiny, dark brown with copper tinge; antennae dark rufopiceous with club rufotestaceous. Legs dark, reddish brown.

Frontal stria of head complete and carinate. Supraorbital stria absent. Disc of front moderately densely covered with round punctures, separated by 1 – 2 times their diameter. There is also a foveiform point basico-medially. Epistoma convex, more finely punctate, the punctures being smaller than those of frontal disc. Labrum finely punctured, strongly incised anteriorly.

Pronotal sides feebly arcuate and convergent forward on basal 3/4, thence strongly convergent apically. Apical angles obtuse. Marginal stria complete, strongly impressed, not crenate, a little shortened at base, its basal end inwardly bent. Disc sparsely and evenly covered with fine punctulation; the pronotal sides and anterior margin covered with moderately dense punctures separated by 1 – 3 times their diameter; the punctation becoming progressively denser laterally, especially on anterior angles where the punctures being elongate. Interspace among the punctures without microreticulation, shiny. Pronotal base with 2 – 3 rows of elongate punctures, densely distributed (0.2 – 1.0). Anterior angles behind eyes with very distinct, rounded postocular foveae.

Epipleura of elytra not concave, very finely and sparsely punctulate on apical half. Marginal epipleural stria fine and thin but complete, prolonged onto elytral apex as an

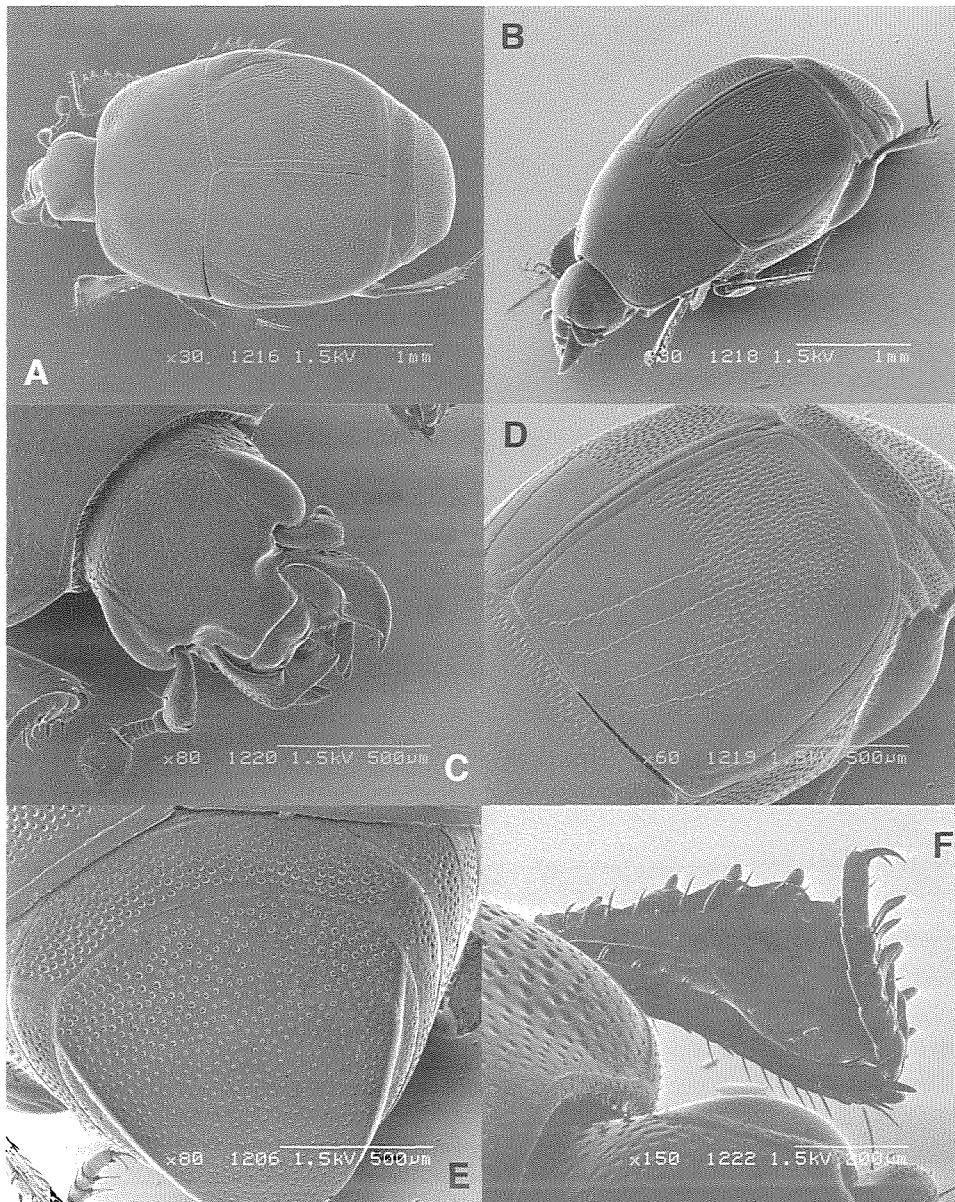


Fig. 13. *Saprinus diversegenitalis*. A: Adult, dorsal view. B: Ditto, dorso-oblique view. B: Head, frontal view. D: Left elytron, dorsal view. E: Propygidium and pygidium, caudal view. E: Left protibia, dorsal view. [male, MO-02031 (Doi suthep, Chiang Mai)].

apical stria and united with the sutural one. Marginal elytral stria clearly impressed, with some coarse punctures at bottom, reaching from humeral angles to the elytral apex. Inner subhumeral stria deep and crenate, abbreviated basally and apically, joining the oblique humeral stria. Humeral stria crenate, present on basal 1/4. First to 4th dorsal striae distinct, crenate, hamate at base, almost equal in length, reaching to or a little beyond the midlength of elytra. The 4th one arched basally and united with sutural stria. The sutural stria complete

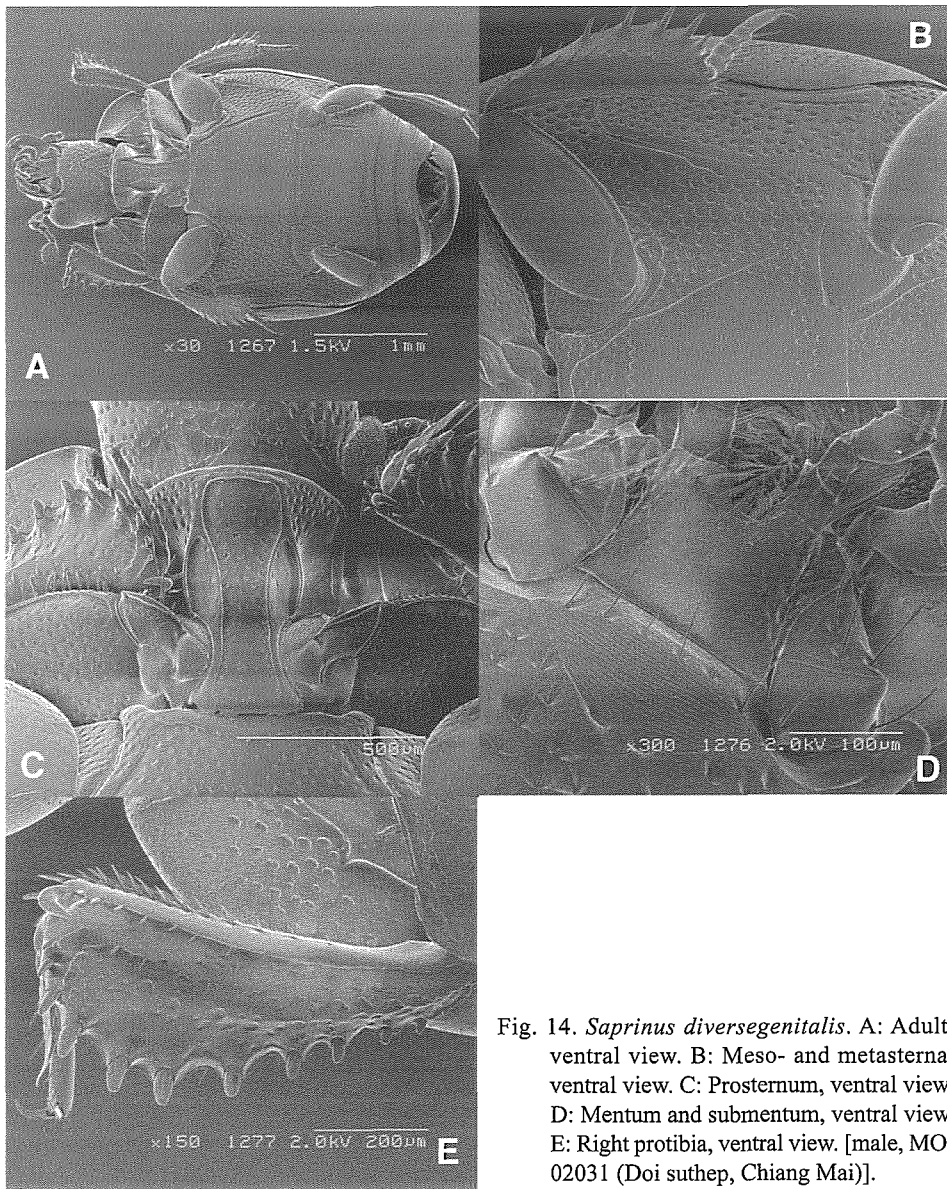


Fig. 14. *Saprinus diversegenitalis*. A: Adult, ventral view. B: Meso- and metasterna, ventral view. C: Prosternum, ventral view. D: Mentum and submentum, ventral view. E: Right protibia, ventral view. [male, MO-02031 (Doi suthep, Chiang Mai)].

and impressed, crenately punctate on apical half. There is also a row of minute punctures between it and a suture, more visible at apical part. Surface of elytra nearly smooth on basal half, very finely and sparsely punctulate in the interspace 2 – 4 and on basal area between 1st dorsal and marginal elytral stria. Apical half of elytra densely covered with coarse, elongate punctures, the punctation reaching also the base between 1st and 2nd dorsal striae. The punctures often rugosely confluent. The interspace with elongate, dense microsculpture giving often an opaque appearance, especially on latero-apical part. Extreme apex of elytra (around apical stria) and flanks finely punctate.

Propygidium densely and moderately punctate, the punctures sometimes transversely

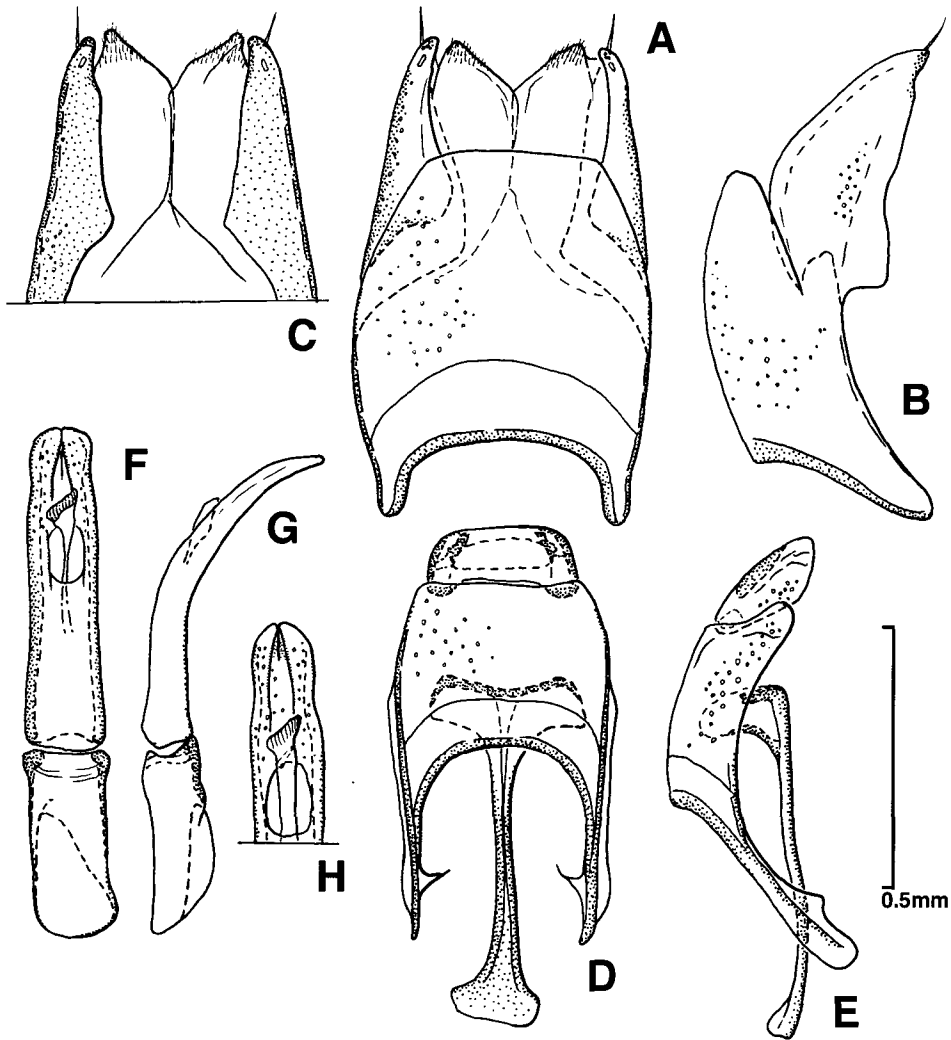


Fig. 15. *Saprinus diversegenitalis*. Male genitalia. A: Eighth tergite and sternum, dorsal view. B: Ditto, lateral view. C: Apical part of eighth sternum, ventral view. D: Ninth and tenth tergites, and ninth sternum (spicule), dorsal view. E: Ditto, lateral view. F: Aedeagus, dorsal view. G: Ditto, lateral view. H: Apex of aedeagus, dorsal view. [MO-02021 (Doi Suthep, Chiang Mai)].

elongate, especially at apex, separated by 0.3 – 1.5 times their diameter, the punctation finer on basal part. Interspace between punctures with alutaceous microsculpture, more or less distinctly marked. Pygidium convex, densely and moderately coarsely punctate on basal half, the punctures becoming finer and sparser towards apex, the apex very finely and sparsely punctulate. Interspace shiny, without microsculpture.

Apical margin of median portion of prosternum rounded, its marginal stria short and carinate, present only at median 1/3. Keel moderately convex, sparsely covered with moderate punctures. Descending lateral stria strongly carinate, convergent to apex and united with the carinals on apical 1/5. Carinal striae distinctly convergent anteriorly and

posteriorly (its minimal width equals about 1/2 of maximal width at apex) and united anteriorly.

Anterior margin of mesosternum feebly emarginate medially, its marginal stria impressed, with some punctures at bottom. Disc sparsely covered with coarse punctures, separated by 2 – 4 times their diameter. Meso-metasternal suture finely impressed, with sparsely and coarsely crenate line. Intercoxal disc of metasternum nearly smooth, very sparsely and finely punctulate, except a transverse apical band of 2 – 3 rows of elongate punctures, densely distributed, and with some small punctures along the metasternal lateral stria. Lateral metasternal stria well impressed, extending obliquely and posteriorly, a little abbreviated apically, reaching nearly hind coxa. Lateral disc covered with large, round and deep punctures, separated by 0.5 – 1.0 times their diameter. Interspace among the punctures smooth and shiny. Metepisternum moderately densely covered with a little elongate punctures.

Intercoxal disc of 1st abdominal sternum striate on each side, the striae a little shortened at apex and bent outwardly. The punctation very fine and sparse on middle, more densely and coarsely punctured along the lateral stria behind anterior corner and in a transverse apical and basal band.

Protibia with 8 (+2) spinules on outer margin and with 2 small spinules at apex.

Genitalia. Male: apical part of 8th sternum narrowly sclerotized in ventral view. Ratio in length of parameres to basal piece about 1.72. Female: spermatheca as shown in Fig. 11B.

Specimens examined. Thailand: Ang Kang, Chiang Mai, 25.III.1991, Y. Manit, 1 ex.; Mae Sa vill., Chiang Mai, 20–27.III.1988, (Elephant camp), K. Masumoto, 3 exs.; Ditto, 5.IV.1995, K. Masumoto, 1 female; Doi Angkhang, Chiang Mai, 1750 m, Fang, 23.V.1989, K. Masumoto, 1 male, 1 ex.; Doi Suthep, Chiang Mai, 7.II.1989, K. Masumoto, 3 males, 3 females, 15 exs.; Ditto, 23.II.1989, K. Masumoto, 5 exs.; Ditto, 6.IV.1991, Y. Manit, 1 ex.; Ditto, 14.III.1980, T. Fujisawa, 2 exs.; Poi Pui, Chiang Mai, 2.II.1988, Y. Manti, 4 males (MO-02021, 02031), 2 females (MO-02023), 9 exs.; Chiang Dao, Chiang Mai, 22.XI.1988, K. Masumoto, 1 ex.; Mae Tang distr., 28.II.1988, Y. Manit, 1 ex.; Ban Dong vill., Pao distr., 28.I.1988, Y. Manit, 7 exs.; Cham Tong, 25.III.1988, K. Masumoto, 1 ex.; Kaoyai National Park, 3.XI.1996, dead fish, M. Kasagi, 1 male; Nam Nao, Phetchabun Prov., 2.XII.1998, K. Masumoto, 5 exs.; Ban Lon, Chaiyaphun, 13, 14.III.2000, K. Masumoto, 1 female, 1 ex.; Doi Inthanon, Chiang Rai, 26.XI.1994, K. Masumoto, 1 ex.

Distribution. Thailand, Nepal, Pakistan.

Note. Recognized originally by Olexa and later wrongly synonymized by Mazur (1997: 223). It is, however, a distinct species, allopatric to *Saprinus frontistrius* Marseul. *S. diversegenitalis* seems to occur more west to the distribution range of *S. frontistrius*.

Chalcionellus orobitis (Lewis, 1888)

(Figs. 16–17)

Saprinus orobitis Lewis, 1888: 643 [Burma].

Saprinus orobites: Lewis, 1905: 71.

Chalcionellus orobitis: Reichardt, 1932: 76.

Redescription. Female. Body length: PPL, 1.97; PEL, 1.58; APW, 0.50; PPW, 1.30; PL, 0.72; EL, 0.94; EW, 1.44; ProW, 0.82; ProL, 0.19; PyL, 0.6; PTL, 0.50; MSTL, 0.46; MTTL, 0.53. Body oval, moderately convex. Cuticle shiny, with copper lustre, antennae

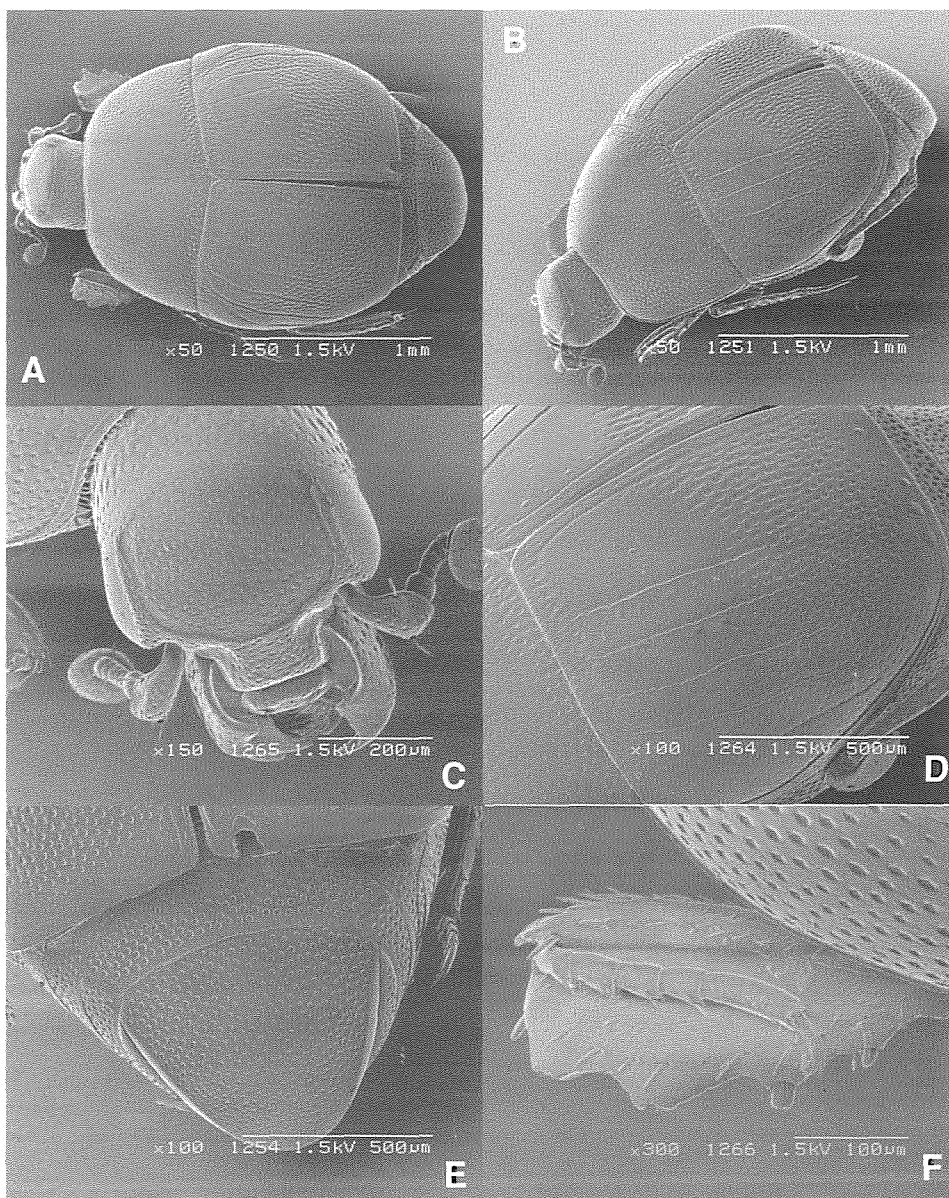


Fig. 16. *Chalcionellus orobitis*. A: Adult, dorsal view. B: Adult, dorso-oblique view. C: Head, frontal view. D: Left elytron, dorso-oblique view. E: Propygidium and pygidium, caudal view. F: Left protibia, dorsal view. [female, MO-02036 (Bokian, Samoan, Chiang Mai)].

and legs rufopiceous, the scapus darker.

Frontal stria of head complete, a little carinate and evenly arcuate. Supraorbital one very thin but complete. Frontal disc densely covered with oval punctures, separated by 0.2 – 1.5 times their diameter, the punctures becoming more finely basally. There are also two indistinct, oblique and longitudinal incisions behind the frontal stria. Epistoma flat,

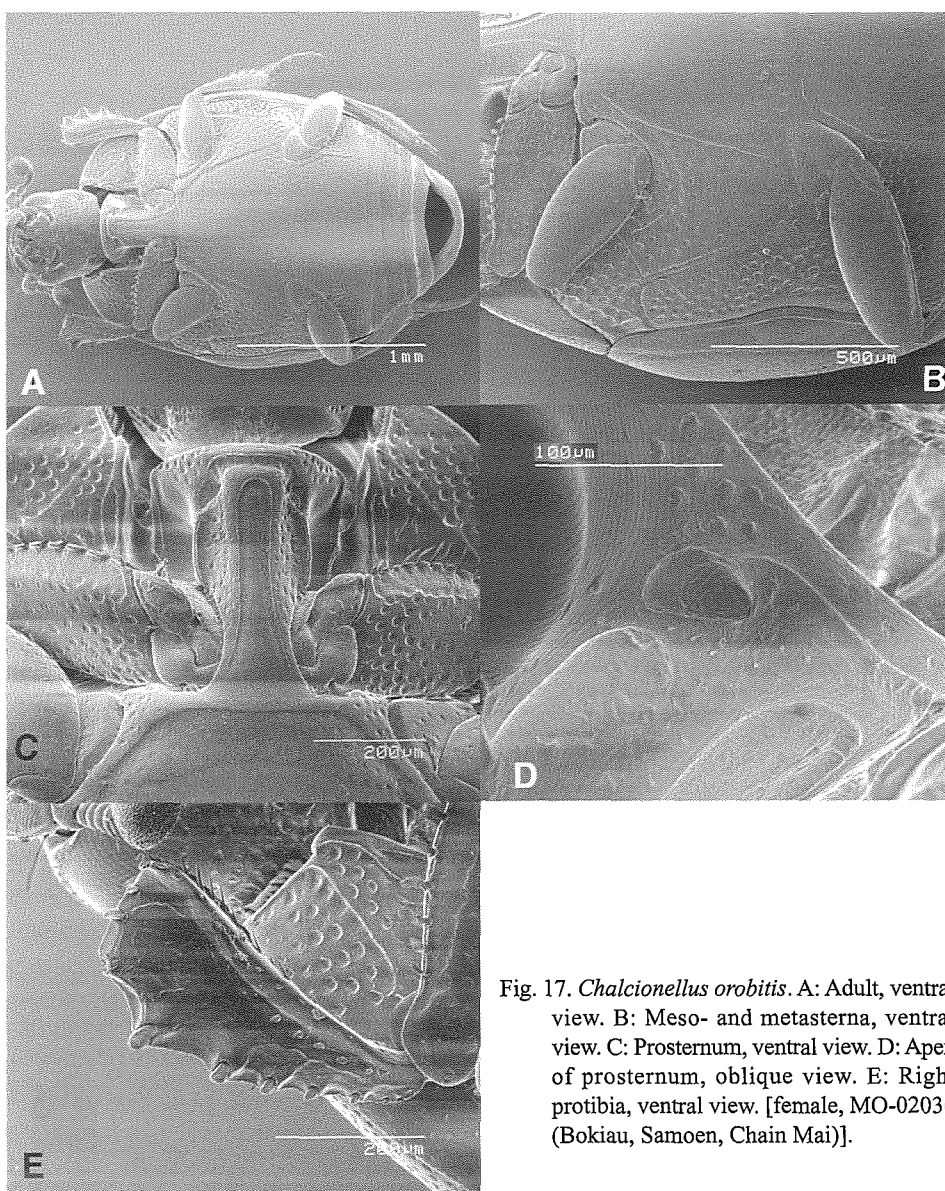


Fig. 17. *Chalcionellus orobitis*. A: Adult, ventral view. B: Meso- and metasterna, ventral view. C: Prosternum, ventral view. D: Apex of prosternum, oblique view. E: Right protibia, ventral view. [female, MO-02036 (Bokiau, Samoan, Chain Mai)].

indistinctly carinate laterally, densely covered with elongate, large punctures, confluent with transverse rugae. Labrum transverse. Mandibles a little excavated, sparsely covered with small punctures, their ventral margin carinate.

Pronotal sides evenly arcuate and convergent forward on basal 3/4, then strongly convergent apically. Apical angles obtusely angulate. Marginal striae complete, a little crenate. Disc sparsely and finely covered with small punctures, separated by 4 – 8 times their diameter, the punctures becoming gradually denser and coarser laterally and at apex, separated by 0.1 – 1.0 times their diameter. There are also two small round areas latero-medially, more finely and sparsely punctulate. The pronotal base also covered with 2 – 3

rows of densely distributed punctures. Interspace between punctures in anterior pronotal angles with very fine microsculpture. Postocular foveae very indistinct, almost absent. Epipleura not ciliated, a little depressed and covered with coarse punctures apically, rather densely distributed (0.5 – 1.0).

Epipleura of elytra flat, very sparsely and indistinctly punctulate, with alutaceous microreticulation. Marginal epipleural stria thin but complete. Marginal elytral stria complete, impressed basally and carinate at apical half, its apical end indistinctly extending along the elytral apex (as an apical stria) to about its midlength. Inner subhumeral stria present on 1/3 medially, a little crenate. Oblique humeral stria present on basal 1/3 and impressed. Dorsal striae 1 – 4 present, crenate and hamate inwardly at base. The 1st one reaching to 2/3 of elytral length, 2 – 4 gradually shorter, the 4th reaching to the mid length of elytra. Sutural stria complete, united with the 4th dorsal stria by an arc basally. Between it and the suture there is also a row of fine punctures, more densely distributed in basal part. Surface of elytra, excepting its basal half and a narrow apical band densely covered with elongate punctures, separated by 0.1 – 1.0 times their diameter. In the 1st interval the punctation reaching nearly the base, in the 4th one it coming obliquely downwards from the middle and the punctures being the coarsest here. Elytral flanks evenly covered with fine punctulation. Also the elytral base with some coarse punctures, arranged into irregular rows. All the interspace between punctures, including flanks, with alutaceous microreticulation.

Propygidium coarsely covered with round punctures, more densely at apex. Pygidium more finely and sparsely punctured as on propygidium, the punctures becoming finer medially, the pygidial apex with fine punctulation. Interspace between punctures at basal half with alutaceous microreticulation.

Anterior margin of median portion of prosternum evenly rounded, its marginal stria distinct and deep, joining the preapical foveae. Preapical foveae oval and deep. Ventral disc of keel sparsely covered with fine punctures. Keel flat, moderately covered with fine punctures. Descending lateral striae carinate, united with carinal ones behind the preapical fovea. Carinal striae carinate, divergent anteriorly to their mid length, then nearly parallel and connected anteriorly by a rounded loop.

Anterior margin of mesosternum feebly emarginate, its marginal stria distinctly carinate and complete. Disc moderately densely covered with round punctures, separated by 3 – 4 times their diameter. Mesosternal base with crenate stria, laying together with mesometasternal suture laterally, but then sinuate anteriorly and distant from mesometasternal suture. Intercoxal disc of metasternum sparsely clothed with fine punctures, the punctation becoming denser and coarser at apical part, especially in front of hind coxae. Lateral stria carinate, extending obliquely and posteriorly, reaching to hind coxae. Lateral disc covered with elongate punctures, separated by 1 – 3 times their diameter. Interspace between punctures with alutaceous microreticulation. Metepisternum densely and coarsely punctured. Intercoxal disc of 1st abdominal sternum striate on each side, the stria carinate and a little abbreviated apically, moderately covered with round punctures, more densely basally.

Protibia a little widened, with 5 teeth with spinules on outer margin. The mid- and hind tibiae with two rows of spinules only.

Specimen examined. Thailand: Bokiau, Samoen, Chiang Mai, 21.XI.1994, K. Masumoto, 1 female (MO-02036).

Distribution. Described and recorded as far only from Burma. New to Thailand.

Chalcionellus masumotoi Mazur et Ôhara, n. sp.
(Figs. 18–20)

Description. Body length (M: male, n=5; F: female, n=1): PPL, M 2.04–2.52 (2.23 ± 0.089), F 2.28; PEL, M 1.73–2.16 (1.93 ± 0.81), F 1.92; APW, M 0.58–0.63 (0.63 ± 0.017), F 0.62; PPW, M 1.44–1.63 (1.52 ± 0.043), F 1.51; PL, M 0.70–0.84 (0.76 ± 0.03), F 0.77; EL, M 1.06–1.27 (1.19 ± 0.039), F 1.15; EW, M 1.56–1.80 (1.68 ± 0.045), F 1.63; ProW, M 0.84–1.08 (0.96 ± 0.039), F 0.96; ProL, M 0.22–0.26 (0.24 ± 0.0076), F 0.22; PyL, M 0.62–0.72 (0.67 ± 0.020), F 0.67; PTL, M 0.55–0.62 (0.59 ± 0.016), F 0.58; MSTL, M 0.58–0.67 (0.62 ± 0.021), F 0.58; MTTL, M 0.62–0.72 (0.66 ± 0.018), F 0.60. Body oval and moderately convex, cuticle shiny with copper metallic lustre; antennae and legs rufopiceous; the scapus darker.

Frontal stria of head complete, a little carinate and evenly arcuate. Supraorbital one lacking. Frontal disc moderately densely covered with small punctures, separated 1 – 3 times their diameter, the punctures becoming more densely behind the frontal stria. There is also a foveiform point on occiput medially. Epistoma a little excavated, carinate laterally, rather densely covered with elongate punctures. Labrum transverse, broadly emarginate anteriorly. Mandibles a little paler than body, excavated apically and sparsely covered with small punctures.

Pronotal sides evenly arcuate and convergent forward on basal 3/4, then strongly convergent apically. Apical angles obtusely angulate. Marginal stria complete, a little crenate. Disc sparsely but distinctly covered with small punctures, the punctation becoming gradually denser and coarser laterally and at apex, also the pronotal base covered with 2 – 3 rows of densely distributed punctures, a little depressed in front of scutellum. Postocular foveae very indistinct, almost absent. Epipleura not ciliated, a little depressed and covered with coarse punctures apically, moderately densely distributed.

Epipleura of elytra flat, very sparsely and indistinctly punctate. Marginal epipleural stria thin but complete. Marginal stria complete, distinctly impressed and crenate, its apical end extending along the elytral apex (as an apical stria) to medio-apical angle of elytron and then united with sutural stria. Internal subhumeral stria present on median 1/4, crenate. Oblique humeral stria thin, present on basal 1/3, not crenate. Dorsal striae 1 – 4 present, impressed and distinctly crenate. The 1st one reaching almost the apex, 2nd to 4th gradually shorter, the 4th reaching to or a little beyond the mid length of elytra. Sutural stria complete and arcuate, united with the 4th dorsal stria by an arc basally. Between it and the suture there is also a row of fine punctures, more densely distributed in apical part. There is also a short transverse spot of stria on each elytral base united with marginal epipleural stria. Surface of elytra, excepting its flanks and basal half densely covered with coarse punctures, as coarse as those of the longitudinal basal area of the pronotum. The interspace 1 – 4 finely covered with sparse punctures. Elytral flanks evenly covered with fine punctation.

Propygidium coarsely covered with round punctures, more densely at apex. Pygidium as punctured as propygidium on basal part, the punctures becoming finer medially, the pygidial apex with fine and not too dense punctation.

Anterior margin of median portion of prosternum evenly rounded. Preapical foveae oval, distinct and deep. Ventral disc of keel sparsely covered with fine punctures. Keel flat, moderately covered with fine punctures. Descending lateral striae carinate, united with carinal ones behind the preapical fovea. Carinal striae carinate, divergent anteriorly and posteriorly, connected anteriorly by a rounded loop.

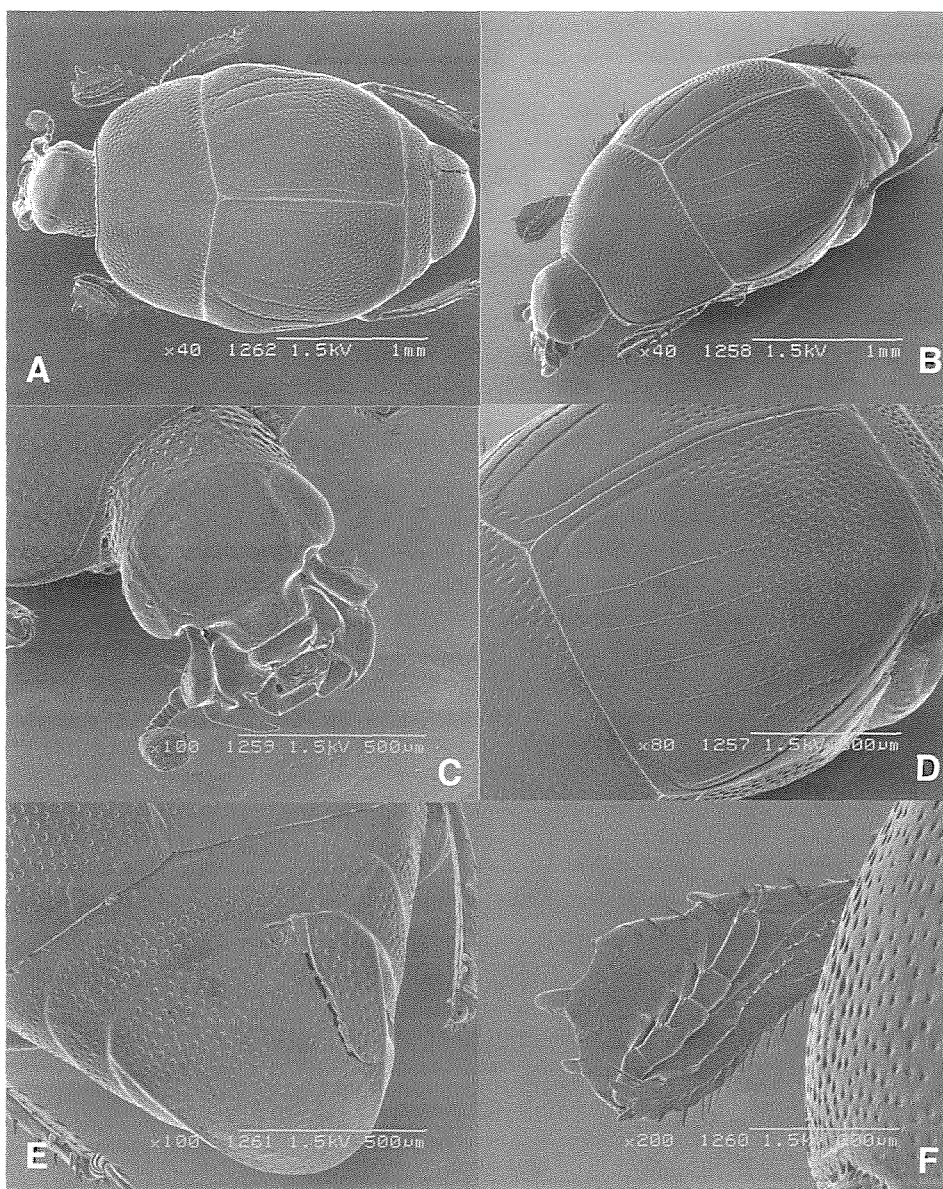


Fig. 18. *Chalcionellus masumotoi*. A: Adult, dorsal view. B: Ditto, oblique view. C: Head, frontal view. D: Left elytron, dorso-oblique view. D: Propygidium and pygidium, caudal view. E: Right protibia, dorsal view. [male, MO-02037. (Doi Suthep, Chiang Mai)].

Anterior margin of mesosternum very feebly emarginate, its marginal stria distinctly crenate and complete. Disc moderately and finely punctate. Meso-metasternal suture sinuate anteriorly, distinctly crenate. Intercoxal disc of metasternum sparsely clothed with fine punctures. The punctation becoming denser and coarser at apical part, especially in front of hind coxae. Lateral stria strongly crenate, extending obliquely and posteriorly, reaching to hind coxae. Lateral disc covered with large, round punctures, which are as coarse as those

of metasternal apex, separated by 0.5 – 1.5 times their diameter. Metepisternum as punctured as lateral disc of metasternum. Intercostal disc of 1st abdominal sternum striate on each side, the stria a little abbreviated apically, and moderately densely covered with round punctures, more densely at basal part.

Protibia a little widened, with 5(+1) teeth with spinules at outer margin. The mid- and hindtibiae with two rows of spinules only.

Male genitalia. Apex of 8th sternum densely furnished with long hairs. Ratio in length of parameres to basal piece about 1.25.

Specimens examined. Holotype: male, Doi Suthep, Chiang Mai, Thailand, 9.II.1989, K.

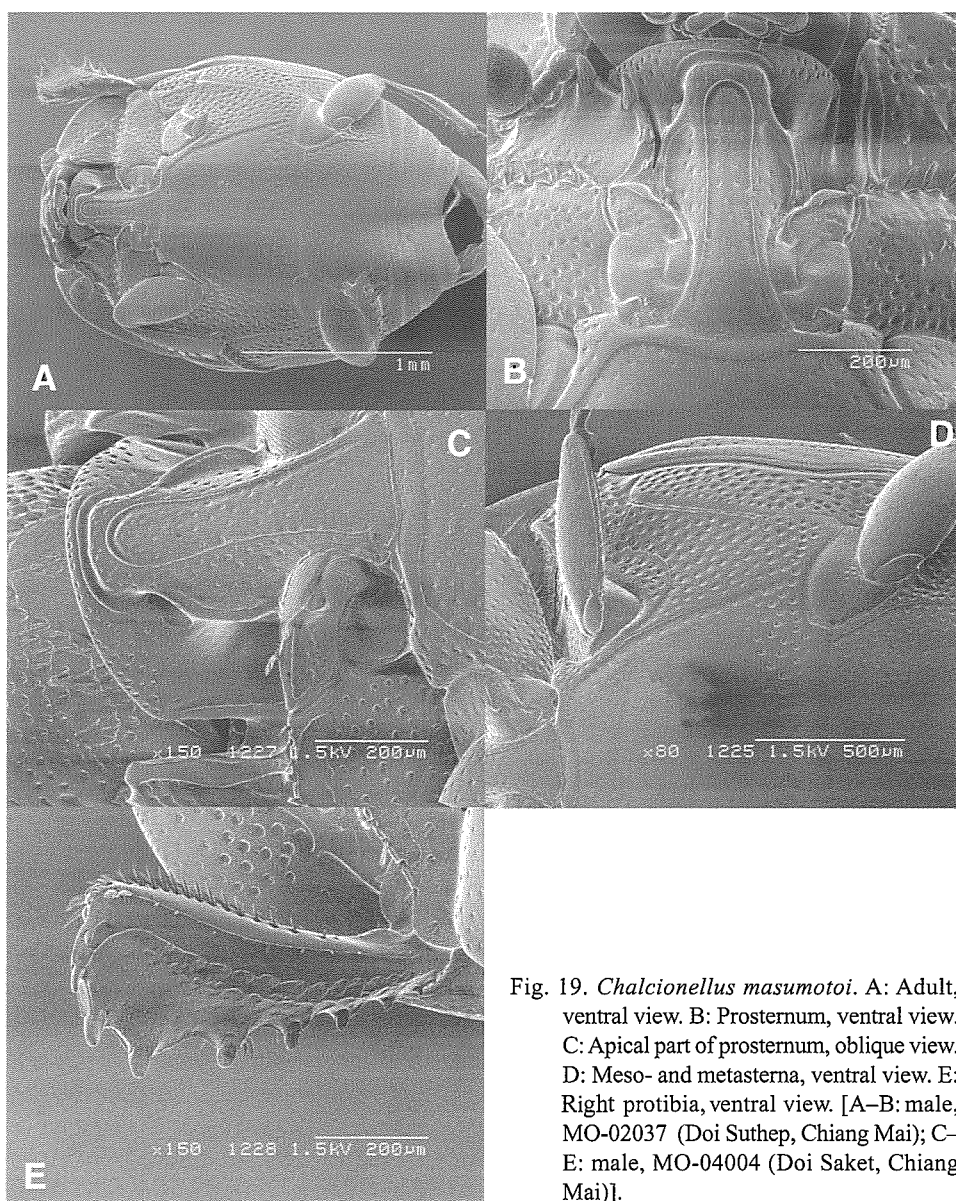


Fig. 19. *Chalcionellus masumotoi*. A: Adult, ventral view. B: Prosternum, ventral view. C: Apical part of prosternum, oblique view. D: Meso- and metasterna, ventral view. E: Right protibia, ventral view. [A–B: male, MO-02037 (Doi Suthep, Chiang Mai); C–E: male, MO-04004 (Doi Saket, Chiang Mai)].

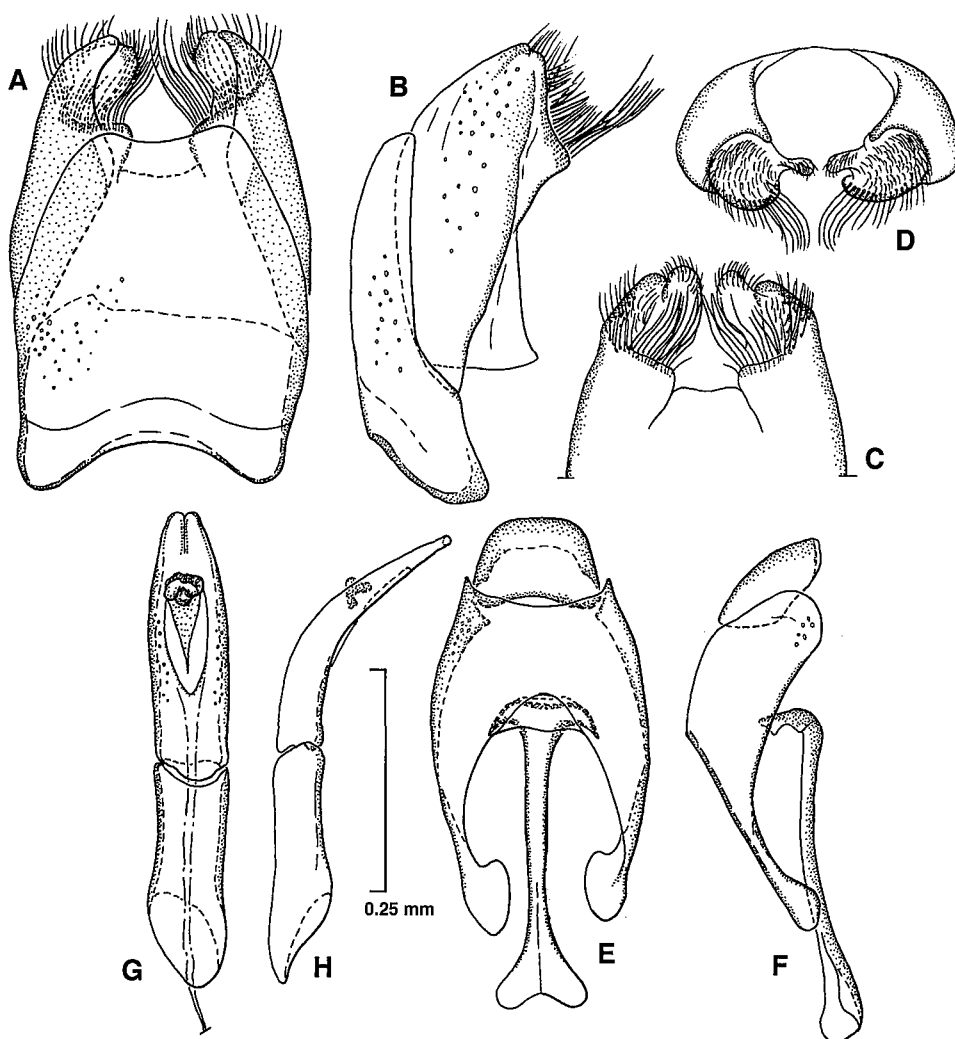


Fig. 20. *Chalcionellus masumotoi*. Male. A: Eighth tergite and sternum, dorsal view. B: Ditto, lateral view. C: Apex of eighth sternum, ventral view. D: Ditto, caudal view. E: Ninth and tenth tergites and ninth sternum (spicule), dorsal view. F: Ditto, lateral view. G: Aedeagus, dorsal view. H: Ditto, lateral view. [MO-02037 (Doi Suthep, Chiang Mai)].

Masumoto (MO-02037). Deposited in the collection of SEHU (Systematic Entomology, The Hokkaido University Museum, Hokkaido University, Sapporo). Paratypes : Thailand: Doi Suthep, Chiang Mai, 7.II.1989, K. Masumoto, 3 males, 1 female [1 female (MO-04001), deposited in SEHU; 1 male (MO-02038), in the collection of S. Mazur, Poland; 1 male (MO-04003), in the collection of the Entomology Department Museum, Faculty of Agriculture, Khon Kaen University, Khon Kaen, Thailand, and 1 male (MO-04002), in the collection of The Insect Museum, Entomology and Zoology Division, Department of Agriculture, Bangkok, Thailand]; Doi Saket, Chiang Mai, 1.I.1991, K. Masumoto, 1 male (MO-02004), deposited in SEHU.

Etymology. Named for Dr. Kimio Masumoto, who provided us with a series of the

type materials.

Distribution. Thailand.

Note. It is related with *Ch. orites* Reichardt, 1932 from Nilgiri Hills (India) but it may be easily recognized by larger size (2.0 – 2.5 mm instead of 1.5 mm), by different punctuation of elytra (1st interval not punctured) and pygidium (coarse and dense basally) as well as by carinal striae being not parallel.

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